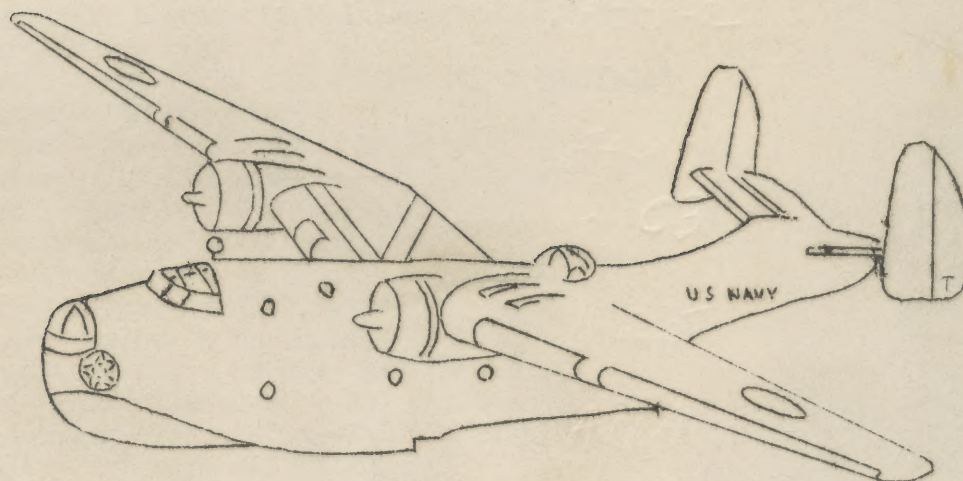


Lt Russell B. Witte Jr.

IDENTIFICATION  
of  
U. S. NAVY AIRCRAFT  
covering  
DESCRIPTION AND AVAILABLE INFORMATION  
on  
SPECIFICATIONS AND PERFORMANCE  
of  
29 IMPORTANT TYPES



Prepared by Department of Military Subjects  
Air Corps Replacement Training Center  
Aircrew School  
Maxwell Field, Alabama.

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# I N D E X

Introduction	Page 2
Navy Airplane Designations	Page 3-4
1. Scout Bomber - SBD-1 (Douglas) "Dauntless"	Page 5
2. Scout Bomber - SB2C-1 (Curtiss) "Helldiver"	Page 6
3. Scout Bomber - SB2A (Brewster) "Buccaneer"	Page 7
4. Scout Bomber - SBU (Vought-Sikorsky)	Page 8
5. Scout Bomber - SBC-4 (Curtiss) Old "Helldiver"	Page 9
6. Scout Bomber - SBN (Navy)	Page 10
7. Scout Bomber - SB2U-2 (Vought) "Vindicator"	Page 11
8. Torpedo Bomber - TBD-1 (Douglas) "Devastator"	Page 12
9. Patrol Bomber - PBX-5A (Consolidated) "Catalina"	Page 13
10. Patrol Bomber - PB2Y-1 and PB2Y-2 (Consolidated) "Coronado"	Page 14
11. Patrol Bomber - PBM-1 (Martin) "Mariner"	Page 15
12. Scout Observation - SO3C (Curtiss) "Seagull"	Page 16
13. Scout Observation - SOC (Curtiss) and SON (Navy)	Page 17
14. Observation Scout - OS2U-1 (Vought-Sikorsky) "Kingfisher"	Page 18
15. Fighter - F2A-1 and F2A-2 (Brewster) "Buffalo"	Page 19
16. Fighter - F3F (Grumman)	Page 20
17. Fighter - F4F-3 (Grumman) "Wildcat"	Page 21
18. Fighter - F4U (Vought-Sikorsky) "Corsair"	Page 22
19. Scout Trainer - SNC-1 (Curtiss)	Page 23
20. Scout Trainer - SNJ (North American)	Page 24
21. Basic Trainer - NJ-1 (North American)	Page 25
22. Primary Trainer - N3N3 (Navy)	Page 26
23. Primary Trainer - NR (Ryan)	Page 27
24. Primary Trainer - NS and N2S (Stearman)	Page 28
25. Multi-Engine Transport - R20 (Lockheed)	Page 29
26. Multi-Engine Transport - R4D (Douglas)	Page 30
27. Utility-Transport JRS (Sikorsky)	Page 31
28. Single-Engine Transport - GB-1 (Beechcraft)	Page 32
29. Utility - J2F-2 (Grumman) Multiplace	Page 33





## INTRODUCTION

On account of the close cooperation in many instances between the Army and Navy Air Forces, and because the Marine Corps which uses Navy airplanes usually operates with the Army on expeditions it is vitally necessary for Army pilots to be able to identify and be familiar with the characteristics of Navy airplanes.

Attention of the student of Identification of Aircraft is called to the fact that whereas this book contains detailed description of some 30 types of Naval Aircraft that the most important ships to be able to identify are the first seventeen, namely the Fighters, Scout or Dive Bombers, Scout-Observation, Torpedo and Patrol Bombers.

The performances and specifications as given are all that are available at present. At the proper time the student will learn more about these features.

The present trend in armament is to greatly increase as fast as possible the fire power and bomb loads of all ships. For example, whereas the armament of a particular fighter might be given as two machine guns, by the time the student has become a pilot, the armament of this ship might be doubled or more than doubled.

It is most important that a student learn the distinguishing features of each ship. In that way immediate identification is possible.

Due to a large number of these ships being carrier based, the Navy uses almost entirely the smaller single aircooled engine fighters and dive bombers. Their lack of the high speed of the Army interceptors and the size, range, and speed of the Army bombers, is made up by the maneuverability and versatility of the Navy ships.





## NAVY AIRPLANE DESIGNATIONS

Naval airplanes are divided into classes in accordance with the mission or missions to be performed. When more than one mission is assigned to a class of airplanes, the second letter indicates the primary mission and the third letter indicates the secondary mission.

Class	Designation	Class	Designation
Bombing.....	VB	Utility.....	VJ
Fighting.....	VF	Bombing-Fighting.....	VBF
Miscellaneous.....	VM*	Observation-Scouting.....	VOS
Observation.....	VO	Patrol-Bombing.....	VPB
Patrol.....	VP	Patrol-Torpedo.....	VPT
Scouting.....	VS	Scouting-Bombing.....	VSB
Torpedo.....	VT	Scouting-Observation.....	VSO
Training.....	VN	Torpedo-Bombing.....	VTB
Transport (multi-engine)....	VR	Utility-Transport.....	VJR
Transport (single-engine)....	VG**		

\*Used for convenience in referring, usually in allocation, Plans, or the Naval Aeronautic Organization, to any group of airplanes, usually more or less obsolescent, assigned to an activity for miscellaneous use; the original model designation of the individual airplanes remaining the same.

\*\*Adopted to clarify designations in view of wide variation in transport type and sizes.

The letter "V" signifies a heavier-than-air craft as "Z" signifies a lighter-than-air craft. This letter is omitted in the designation of individual models of the various classes of airplanes, naming of airplane squadrons, etc. Airplanes are designated by a group of letters and numbers. This consists of a letter or letters indicating its class; second, a number indicating the model; and third, a letter indicating the manufacturer, followed by a dash and a number indicating the modification of the model.

Examples:	NY-1	PBY-1
	NY-2	PBY-2
	N2Y-1	PB2Y-1

In the designation of the first model of a class produced by a certain manufacturer, the first number (1) is omitted. This, in the VN class, the first training airplane to be produced by the Consolidated Aircraft Corporation would be the NY-1. When a major alteration, not of a character to change the model, is made in the NY-1, the modified airplane becomes the NY-2. A second modification would be the NY-3. A second training airplane built by this company would be the N2Y-1, and successive modifications of this airplane would be the N2Y-2, etc.



# NAVY AIRCRAFT DESIGNATION

These airplanes are divided into classes in accordance with the mission or missions to be performed. When more than one mission is assigned to a class of airplane, the word "multi" indicates the primary mission and the other letters indicate the secondary mission.

Class	Designation	Class	Designation
VS	VS-1	VS	VS-1
VS	VS-2	VS	VS-2
VS	VS-3	VS	VS-3
VS	VS-4	VS	VS-4
VS	VS-5	VS	VS-5
VS	VS-6	VS	VS-6
VS	VS-7	VS	VS-7
VS	VS-8	VS	VS-8
VS	VS-9	VS	VS-9
VS	VS-10	VS	VS-10

When a number is placed after the letter "V" it signifies a modification of the basic type. This number is placed in the designation of the aircraft model of the various classes of airplane, ranging from VS-1 to VS-10. The number of a letter or letters indicating the class, second, a number indicating the model, and third, a letter indicating the modification, followed by a dash and a number indicating the modification of the model.

VS-1 VS-2 VS-3 VS-4 VS-5 VS-6 VS-7 VS-8 VS-9 VS-10

The letter "V" signifies a heavy bomber. This letter is placed in the designation of the aircraft model of the various classes of airplane, ranging from VS-1 to VS-10. The number of a letter or letters indicating the class, second, a number indicating the model, and third, a letter indicating the modification, followed by a dash and a number indicating the modification of the model.

VS-1	VS-2
VS-3	VS-4
VS-5	VS-6
VS-7	VS-8
VS-9	VS-10

In the designation of the VS-1, the first letter "V" is omitted. This is the VS-1, the first training airplane to be produced by the Consolidated Aircraft Corporation. The VS-2, the VS-3, the VS-4, the VS-5, the VS-6, the VS-7, the VS-8, the VS-9, and the VS-10, are modifications of the VS-1, the VS-2, the VS-3, the VS-4, the VS-5, the VS-6, the VS-7, the VS-8, the VS-9, and the VS-10, respectively.



Similarly, in the VPB class, the first patrol-bombing airplane to be produced by the Consolidated Aircraft Corporation would be the PBY-1. The modifications of this airplane would be the PBY-2, PBY-3, etc. A second patrol-bombing airplane built by this company would be the PB2Y-1, PB2Y-2, PB2Y-3, etc.

The designation of airplanes of an experimental design is prefixed by the letter "X". Airplanes so designated shall retain the prefix while in service in order to indicate that such airplanes were the first of that experimental design series. XF2B-1 indicates that such an airplane is the first of a new series of experimental fighters manufactured by the Boeing Airplane Company, although this design is the second fighter design to be accepted for use and put into production, the prefix in the design is dropped.

The current manufacturers' letters are:

A--Brewster	N--Naval
B--(Boeing)	O--Lockheed
C--Curtiss	P--Spartan
D--Douglas	R--Ryan
E--Bellanca	S--(Sikorsky, Stearman, Stinson)
F--Grumman	T--El Segundo - <i>Northrop</i>
J--North American	U--Vought-Sikorsky
K--(Fairchild)	W--Waco
M--Martin	X--Experimental
	Y--Consolidated

The student should thoroughly familiarize himself with the instruction, nomenclature and expressions covered in pages 1 - 17 of Army FM 30-30.

Similarly, in the VHS class, the first tactical-bombing airplane to be produced by the Generalized Aircraft Corporation would be the PBT-1. The modifications of this airplane would be the PBT-2, PBT-3, etc. A second tactical-bombing airplane built by the company would be the PBT-4, PBT-5, PBT-6, etc.

The construction of airplanes of an experimental design is restricted by the laws of physics. Airplanes so built must still retain the basic principles in service in order to indicate that such airplanes were the first of that experimental design series. PBT-1 has a fuselage that such an airplane is the first of a new series of experimental fighters manufactured by the General Aircraft Company, although this is the second fighter design to be accepted for use and put into production, the prefix in the design is dropped.

The current nomenclature, fighter series, is as follows:

1-Experimental	1-Experimental
2-Experimental	2-Experimental
3-Experimental	3-Experimental
4-Experimental	4-Experimental
5-Experimental	5-Experimental
6-Experimental	6-Experimental
7-Experimental	7-Experimental
8-Experimental	8-Experimental
9-Experimental	9-Experimental
10-Experimental	10-Experimental
11-Experimental	11-Experimental
12-Experimental	12-Experimental
13-Experimental	13-Experimental
14-Experimental	14-Experimental
15-Experimental	15-Experimental
16-Experimental	16-Experimental
17-Experimental	17-Experimental
18-Experimental	18-Experimental
19-Experimental	19-Experimental
20-Experimental	20-Experimental

The student should thoroughly familiarize himself with the instructions, nomenclature and explanations covered in pages I - IV of Army No. 30-30.



## SCOUT BOMBER

SBD-1 (Douglas) "Dauntless". 2 Place.

ARMY A-24

### DESCRIPTION:

WINGS: Low-wing monoplane; slightly sweptback leading edge, tapered trailing edge, rounded tips, small dihedral.

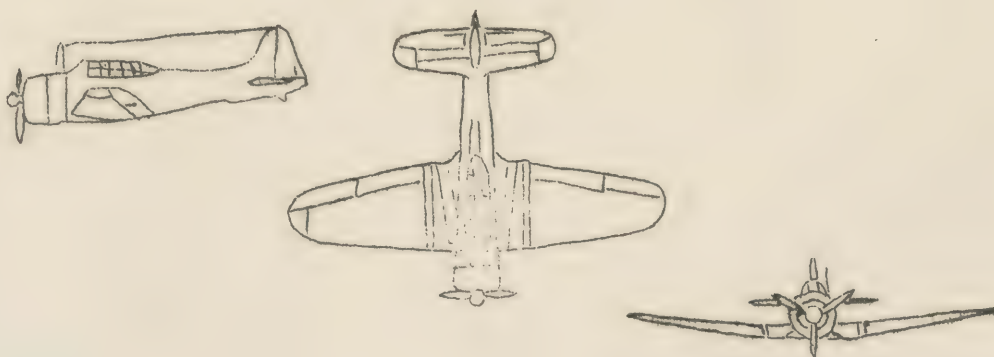
ENGINE: Single radial.

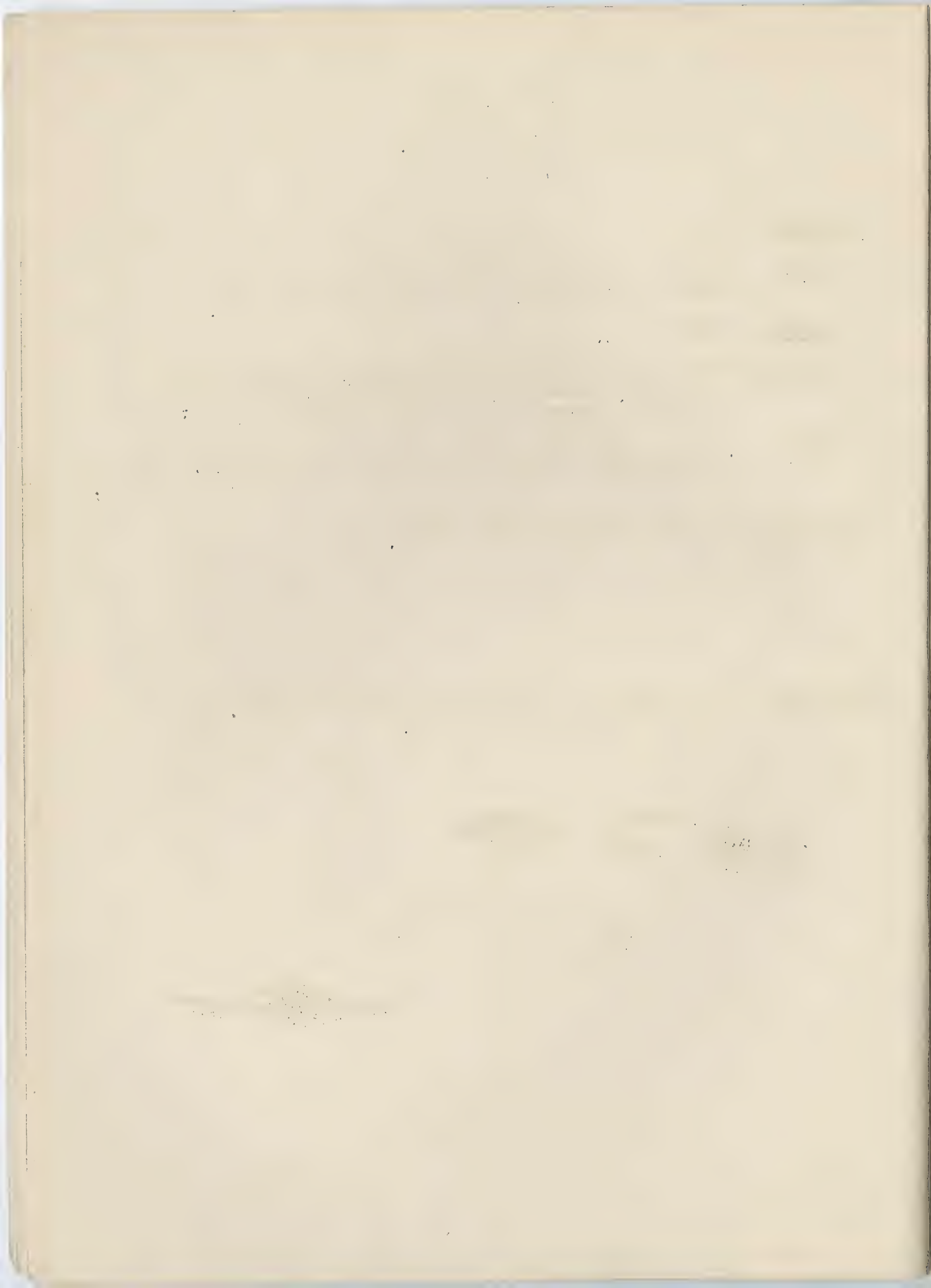
FUSELAGE: Fairly elongated and streamlined with rather blunt and stubby nose. Enclosed cockpit extending width of wing. Retractable landing gear and partly retractable tail wheel.

TAIL: Sweptback stabilizer; tapered elevator with wide span. High fin and rudder very curved where front of rudder joins fuselage.

SPECIFICATIONS: 950 H. P. Wright Cyclone engine.

PERFORMANCE: One of latest type and most effective dive bombers. Used very largely in Marine Corps.







## SCOUT BOMBER

SB2C-1 (Curtiss) "Helldiver". (Two-place)

### DESCRIPTION:

WINGS: Low-wing monoplane, straight leading edge, tapered trailing edge; tapered tips; medium dihedral.

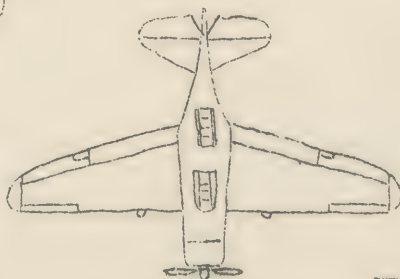
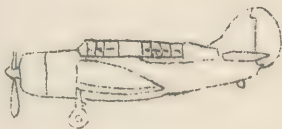
ENGINE: Single radial.

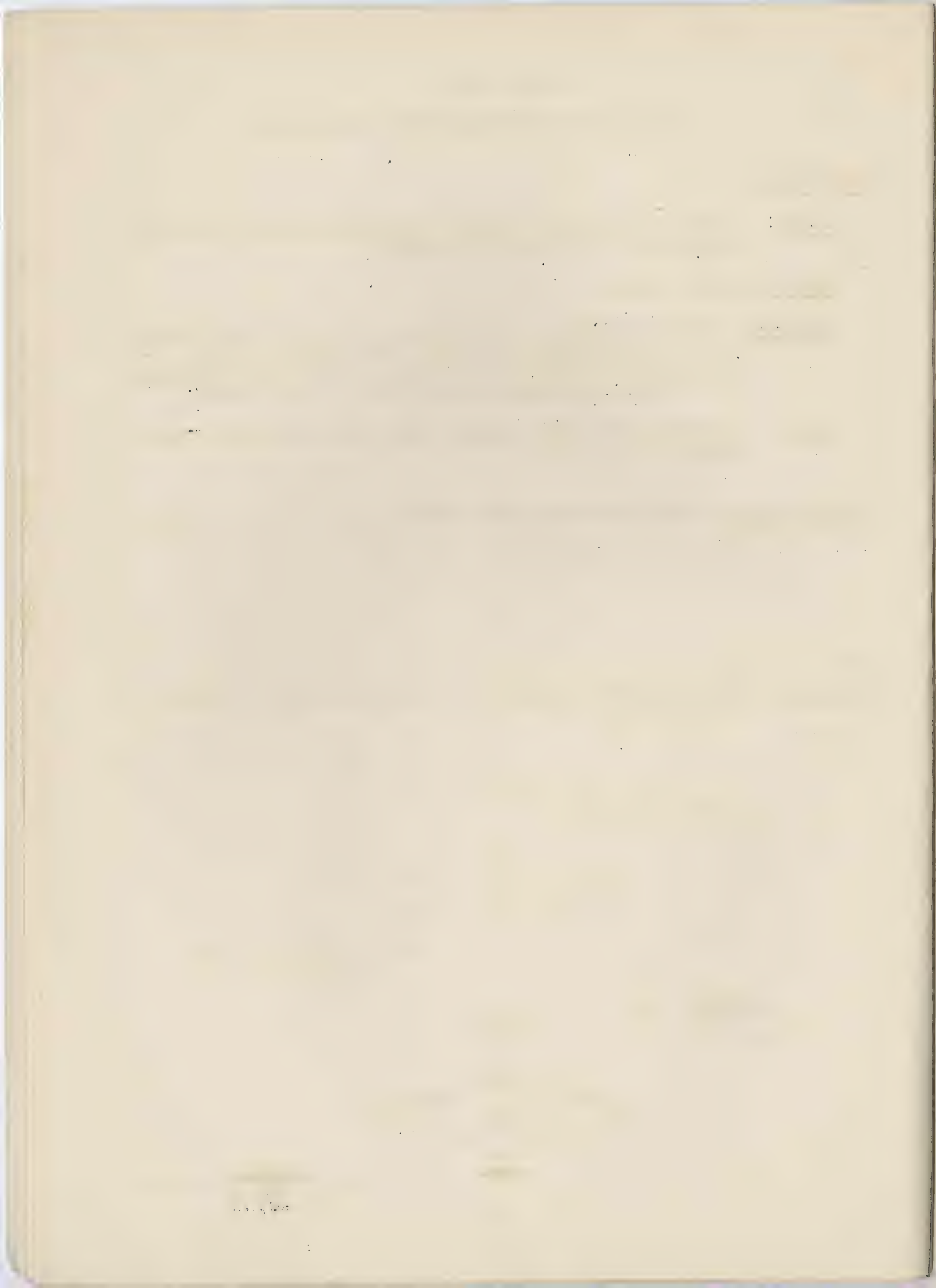
FUSELAGE: Fairly elongated and streamlined; rather blunt and stubby nose; large, pointed, heavy cuff over propeller shaft. Enclosed cockpit extends from leading edge to rear of trailing edge of wing; retractable landing gear and tail wheel.

TAIL: Sweptback stabilizer; tapered elevator; high rounded fin and rudder.

SPECIFICATIONS: 1,700 H.P. Wright Cycle engine.

PERFORMANCE: Newest and rated as one of the most effective Dive Bombers in the World.







## SCOUT BOMBER

SB2A (Brewster) "Buccaneer". Multiplace.

### DESCRIPTION:

WINGS: Midwing; very slightly sweptback leading edge; very slightly tapered trailing edge, rounded tips; wing almost even in width from root to tip; medium dihedral.

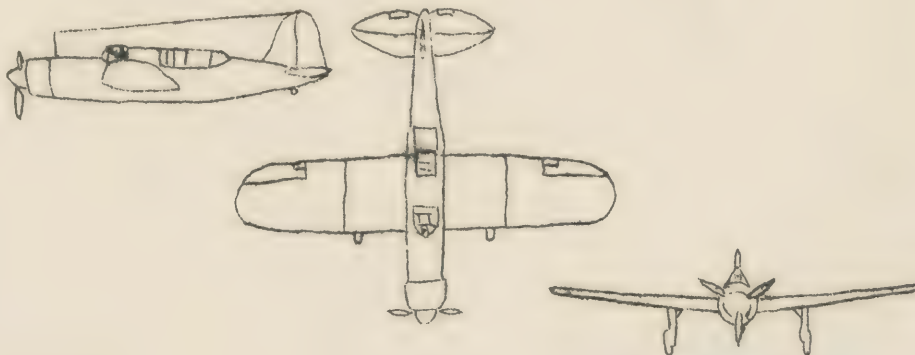
ENGINE: Single radial with heavy cuff on propeller shaft.

FUSELAGE: Elongated and streamlined with long and fairly pointed nose. Enclosed cockpit extending from leading edge of wing to several feet in rear of trailing edge. Retractable landing gear fixed to tail wheel. Wide tread.

TAIL: Rounded stabilizer and elevator with elliptical tips. High rounded fin and rudder.

SPECIFICATIONS: 950 H.P. Wright Cyclone engine. Span 39 feet, length 27 feet 10 in., height 7 feet 7 inches. Weight empty, 4,017 lbs., loaded 5,381 lbs. Gas 136 gals.

PERFORMANCE: Maximum speed 320 M.P.H. at 17,000 feet. Cruising speed ~~277~~ 277 M.P.H. Landing speed 65 M.P.H. Climb 2,220 F.P.M. Service ceiling 30,000 feet. Range 776 miles.







## SCOUT BOMBER

SBU (Vought-Sikorsky). 2 Place

### DESCRIPTION:

WINGS: Biplane; sweptback leading edges; tapered trailing edges, rounded tips; oval cut-out of center of top wing; positive stagger.

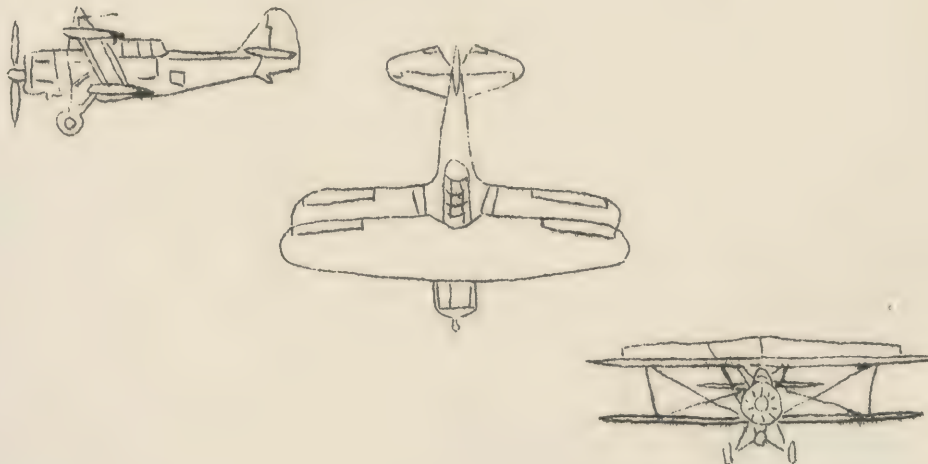
ENGINE: Single radial.

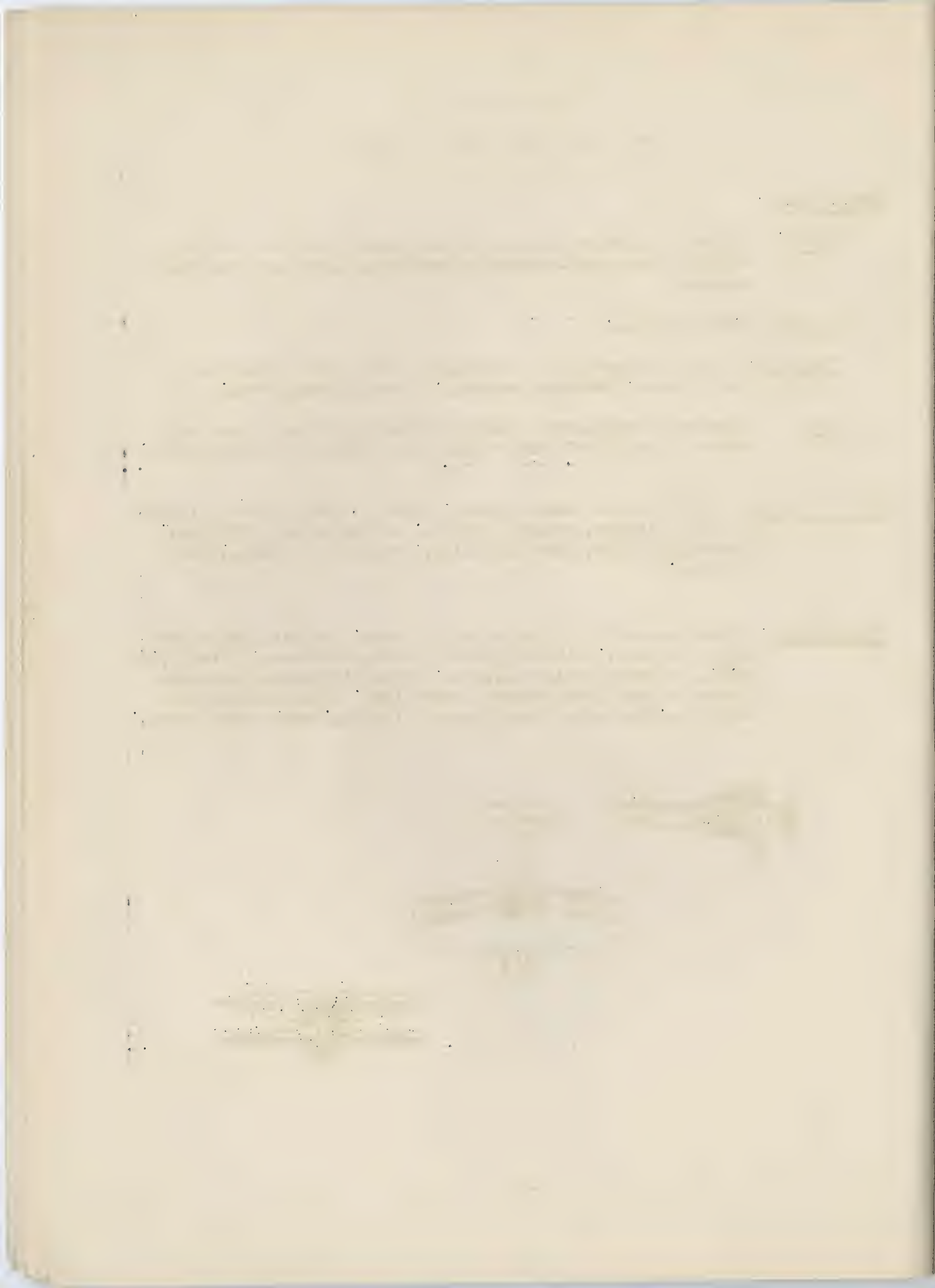
FUSELAGE: Fairly elongated and streamlined with rather blunt and stubby nose. Enclosed cockpit. Fixed landing gear.

TAIL: Sweptback stabilizer; tapered elevators; V slot in center, rounded tips; wide span; medium high rounded fin and rudder.

SPECIFICATIONS: 750 H.P. twin wasp engine. Span 33 feet 3 inches, length 27 feet 9 inches, height 10 feet. Weight empty 3,535 lbs., loaded 5,329 lbs. Gas 145 gals., emergency 15 gals., oil 12 gals.

PERFORMANCE: Maximum speed 205 M.P.H. at 8,900 feet. Cruising speed 169 miles per hour. Landing speed 65 miles per hour. Climb 1,330 F.P.M. Service ceiling 24,900. Range 710 miles. Armament 1 machine gun firing through propeller. 1 in rear cockpit. 1-500 lb. bomb under fuselage or 4,100 lb. bombs under wings.







## SCOUT BOMBER

SEC-4 (Curtiss) Old "Helldiver". 2 Place

### DESCRIPTION:

WINGS: Biplane; upper wing, sweptback leading edge, straight trailing edge; lower wing straight leading and trailing edges, slight dihedral; both wings rounded tips. Positive stagger.

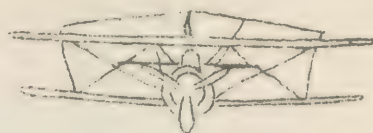
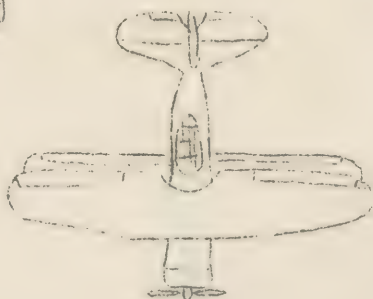
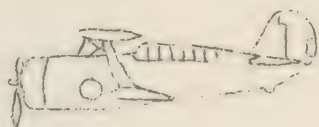
ENGINE: Single radial.

FUSELAGE: Short and chunky with blunt and stubby nose. Enclosed cockpit over trailing edge of lower wing. Retractable landing gear and tail wheel.

TAIL: Sweptback stabilizer, tapered elevator, rather wide span, High fin and rudder.

SPECIFICATIONS: 250 H.P. Wright Cyclone engine. Span 34 feet. Length 27.5 feet, height 10.4 feet. Empty weight 4,548 lbs. Useful load 1,708 lbs. Gross weight 6,256 lbs. Fuel 135 gals.

PERFORMANCE: Maximum speed 235 M.P.H. at 15,200 feet. Cruising speed 204 M.P.H. at 15,200 feet. Landing speed 68 M.P.H. Service ceiling 24,500 feet. Absolute ceiling 25,400 feet. Cruising range 855 miles. Armament: 1, 50 cal. Machine gun firing thru propeller, 1, 30 cal. machine gun in rear cockpit, 1, 500 lb. or 1, 1,100 lb. bomb under fuselage, 1 rack on each wing for 100 lbs. bombs.







## SCOUT BOMBER

SBN (Navy)      Multi-Place

### DESCRIPTION:

WINGS:    Midwing monoplane; very slightly sweptback leading edge, tapered trailing edge, rounded tips.

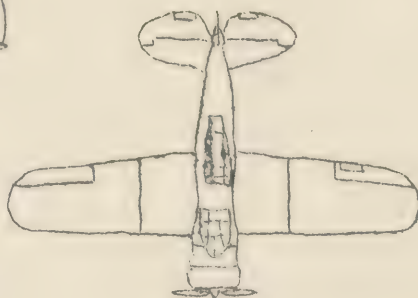
ENGINE:   Single radial.

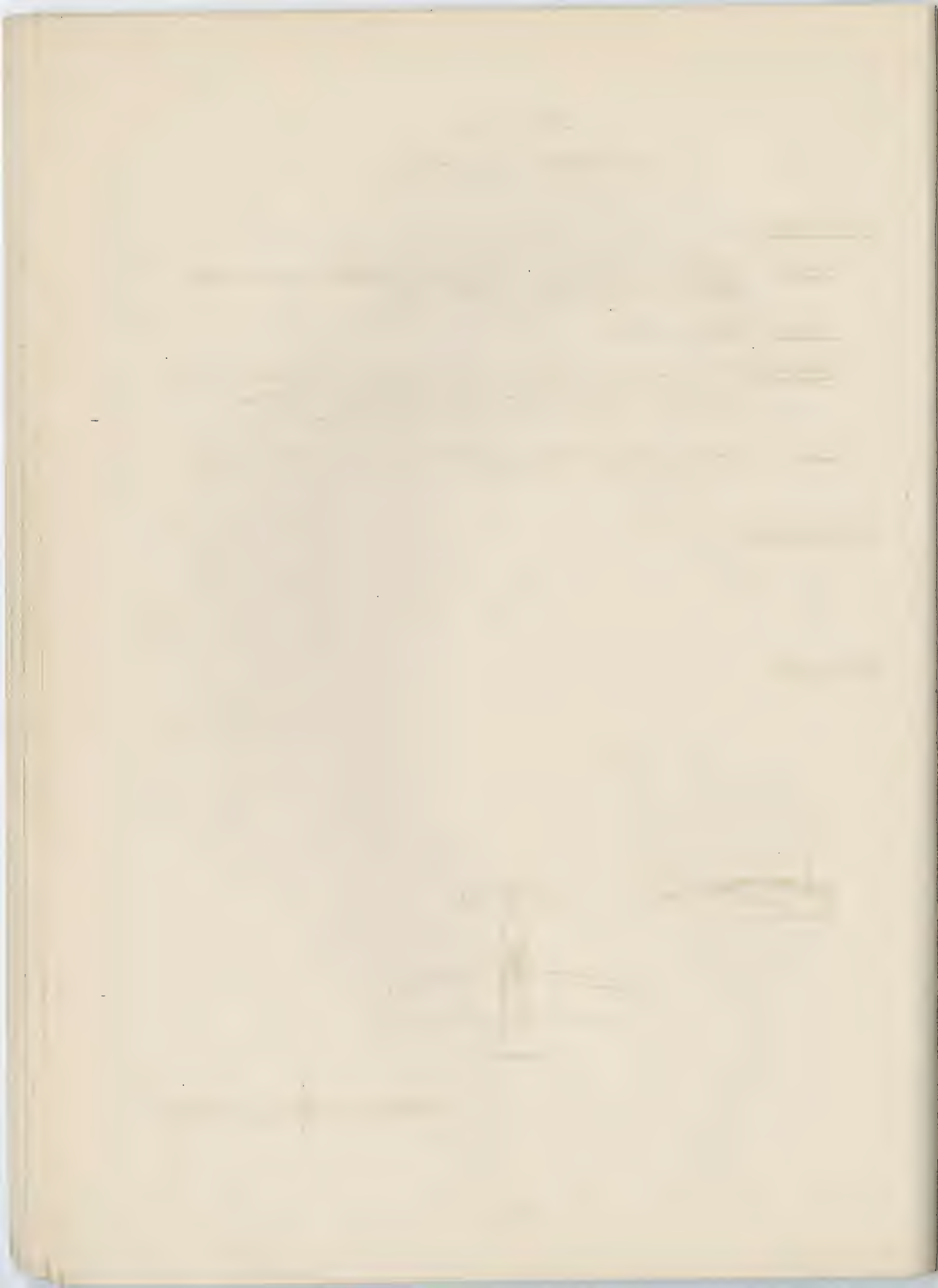
FUSELAGE: Rather long but fairly chunky with blunt and stubby nose. Enclosed cockpit extending  $\frac{2}{3}$  length of fuselage. Retractable landing gear, fixed tail wheel.

TAIL:      Rounded stabilizer and elevator with rather wide span. High rounded fin and rudder.

### SPECIFICATIONS:

### PERFORMANCE:







## SCOUT BOMBER

SB2U-2 (Vought) "Vindicator". 2 Place

### DESCRIPTION:

WINGS: Low-wing monoplane, slight dihedral beginning several feet from fuselage, slightly sweptback leading edge beginning at point of dihedral; tapered trailing edge to point of dihedral; rounded tips.

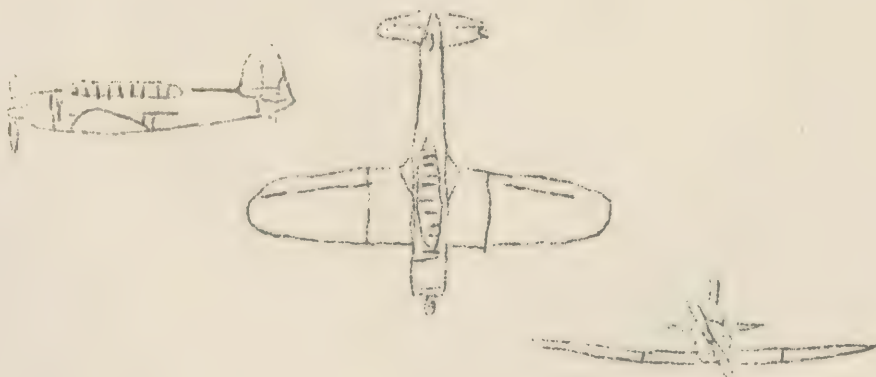
ENGINE: Single radial.

FUSELAGE: Elongated, fairly streamlined with rather blunt and stubby nose. Enclosed cockpit extends from leading edge to beyond trailing edge of wing. Retractable landing gear; fixed tail wheel.

TAIL: Sweptback stabilizer, tapered elevator, high tapered fin and rudder.

SPECIFICATIONS: Span 42 feet, length 34 feet, height 9 feet 10 inches, Empty weight 4,500 lbs. Gross weight 6,500 lbs. Fuel 130 gals, oil 11 gals. 750 H.P. Pratt and Whitney engine.

PERFORMANCE: Maximum speed 257 M.P.H. Cruising speed 227 M.P.H. Landing speed 66 M.P.H. Service ceiling 28,200 feet. Climb 1,545 feet per minute. Cruising range 701 miles.







TORPEDO BOMBER  
TBD-1 (Douglas) "Devastator". 3-Place.

DESCRIPTION:

WINGS: Low-wing monoplane, slightly sweptback leading edge, tapered trailing edge, round tips, small dihedral.

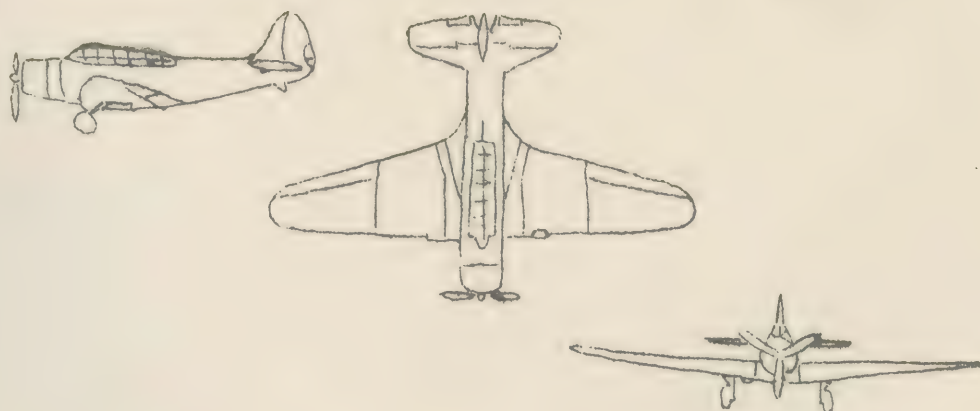
ENGINE: Single radial.

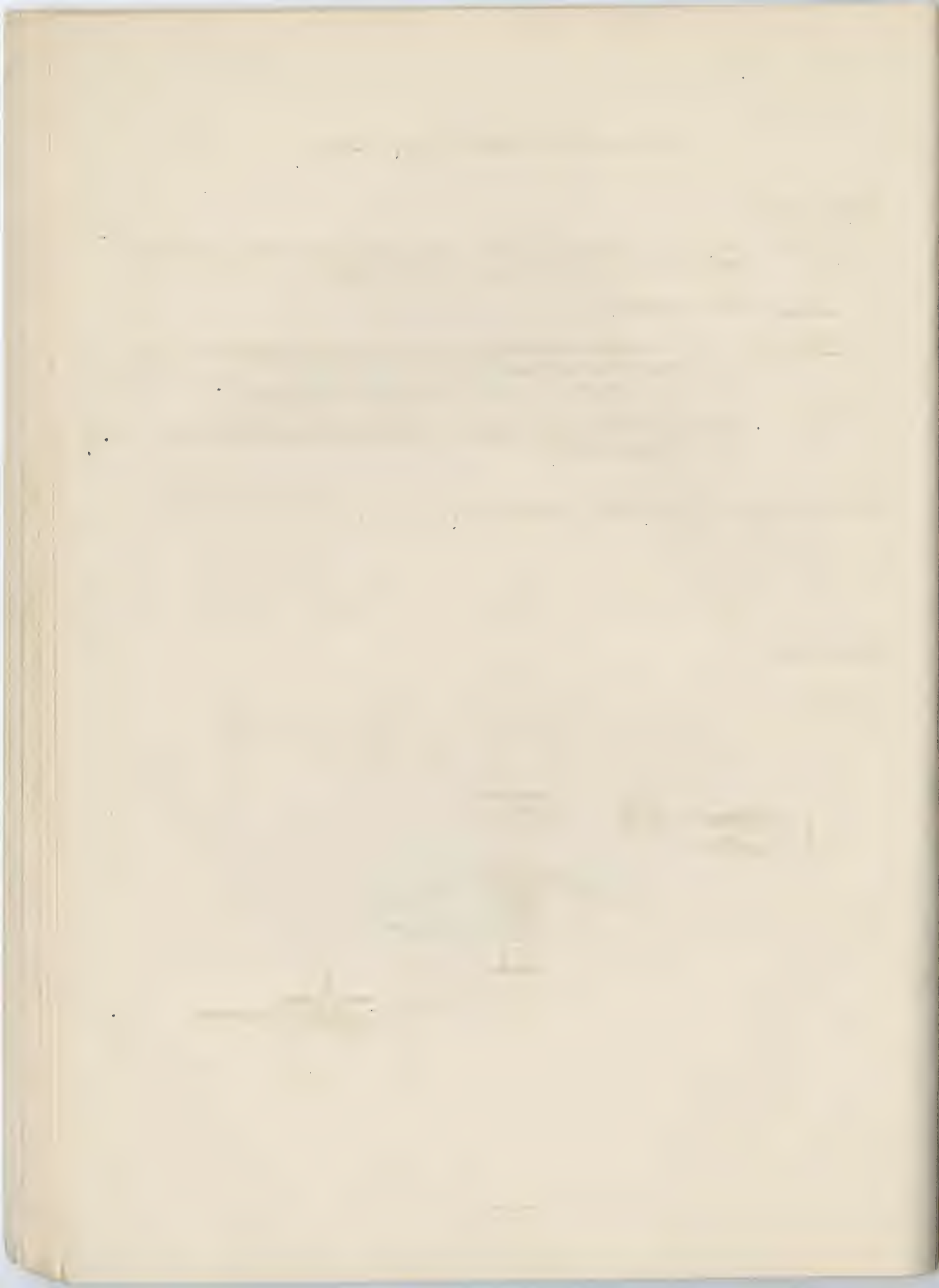
FUSELAGE: Fairly elongated and rather streamlined with blunt but fairly long nose. Enclosed cockpit extending width of wing. Retractable landing gear and partly retractable tailwheel.

TAIL: Sweptback stabilizer, slightly tapered elevator with rounded tips. High fin and rudder.

SPECIFICATIONS: 850 H.P. twin wasp engines. *span 50'*

PERFORMANCE:





## PATROL BOMBER

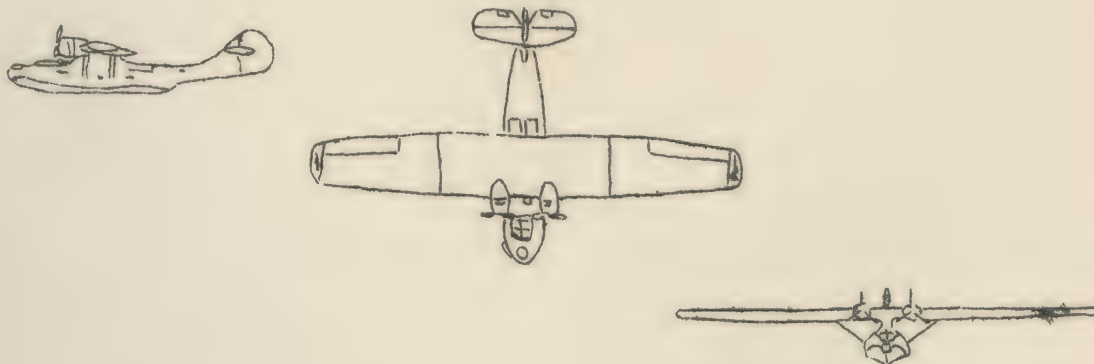
PBY-5A (Consolidated) "CATALINA" Flying boat - 5 to 9 Place.

### DESCRIPTION:

- WINGS: Parasol monoplane; slightly sweptback leading edge and slightly tapered trailing edge, wing tip floats retract forming square tips.
- ENGINE: Twin-motored in nacelles above fuselage. Nacelles only short distance in wings.
- FUSELAGE: Long but rather chunky, shark nose, enclosed cabin, connected by solid center section. Large gun turret blisters on each side.
- TAIL: Sweptback stabilizer; straight elevator with cut out section in center, rounded tips, high fin, high, wide rudder. Fin very curved at front connection with fuselage.

SPECIFICATIONS: Two 1050 H. P. Pratt and Whitney Twin Wasp engines Span 104 feet, length 65 feet, height 18 feet; 19 feet. Gross weight 27,413 lbs. Fuel 1,750 gals. Empty weight 14,240 lbs.

PERFORMANCE: Maximum speed 199 M.P.H., cruising speed 179 M.P.H., landing speed 69 M.P.H., service ceiling 24,000 feet., absolute ceiling 25,700 feet, climb 920 feet per min. Range 4,000 miles.





Handwritten text in a cursive script, likely from a 17th or 18th-century manuscript. The text is arranged in several paragraphs, with some lines indented. The ink is dark, and the paper shows signs of aging and discoloration.

Continuation of the handwritten text, appearing as a separate section or paragraph. The script remains consistent with the upper portion of the page.



## PATROL BOMBER

PB2Y-1 and PB2Y-2 (Consolidated) "Coronado"  
FLYING BOAT (Multiplace)

### DESCRIPTION:

WINGS: High wing monoplane; sweptback leading edge, straight trailing edge, square tips; long and rather narrow considering span.

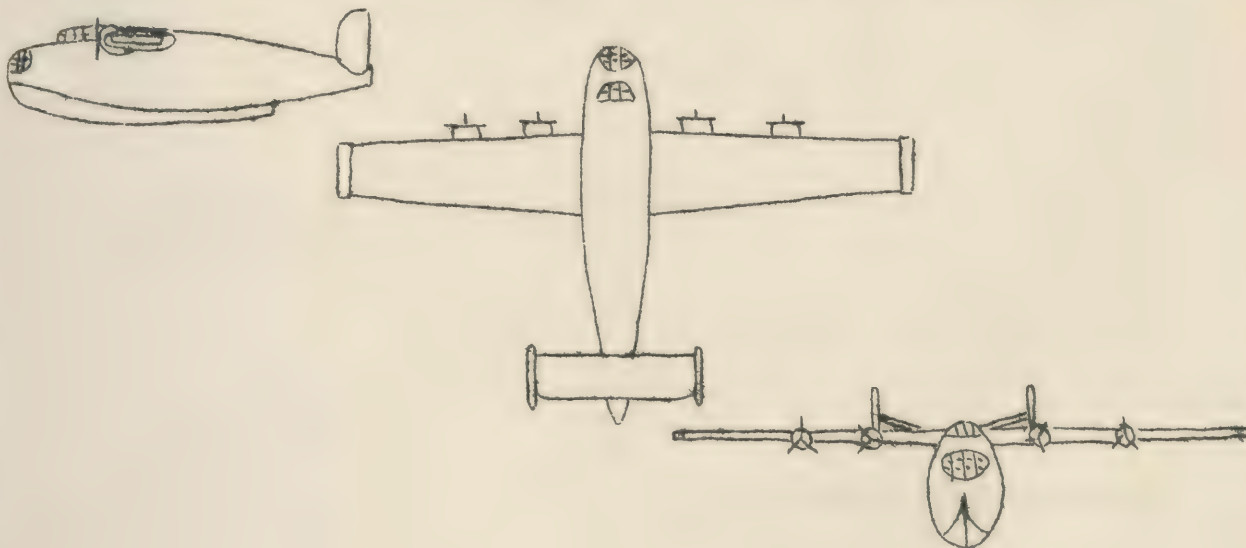
ENGINE: Four motored, radial.

FUSELAGE: Large and chunky but rather streamline considering size; shark nose; enclosed cabins in boat

TAIL: Straight stabilizer and elevator; medium dihedral; twin rounded fins and rudders.

SPECIFICATIONS: Four 1050 H.P. Pratt and Whitney Twin Wasp engines. Span 115 feet, length 79 feet 3 inches, height 25 feet 4 inches.

PERFORMANCE: Has very long range; recently made non-stop flight San Diego, California to Washington, D. C. in 13 hours.







PATROL BOMBER

PBM-1 (Martin) "Mariner"

FLYING BOAT - Multiplace

DESCRIPTION:

WINGS: Gull wing; slightly sweptback leading edge; tapered trailing edge; round tips; long and narrow. Retractable wing tip floats.

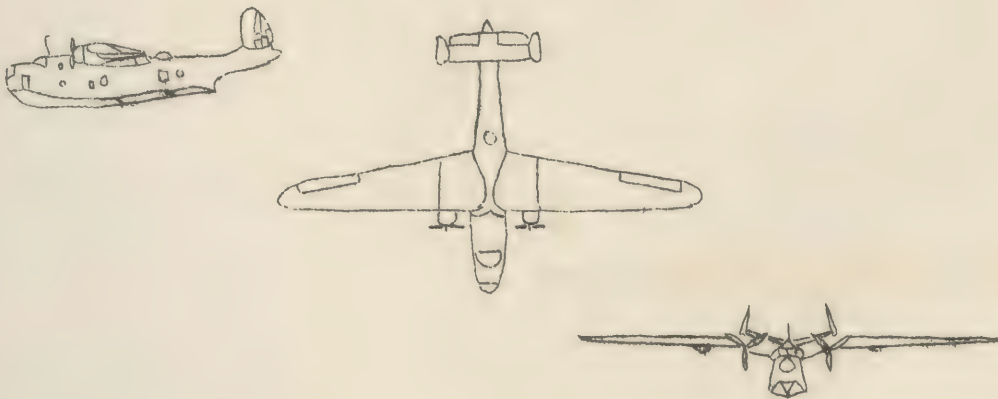
ENGINE: Twin-motored.

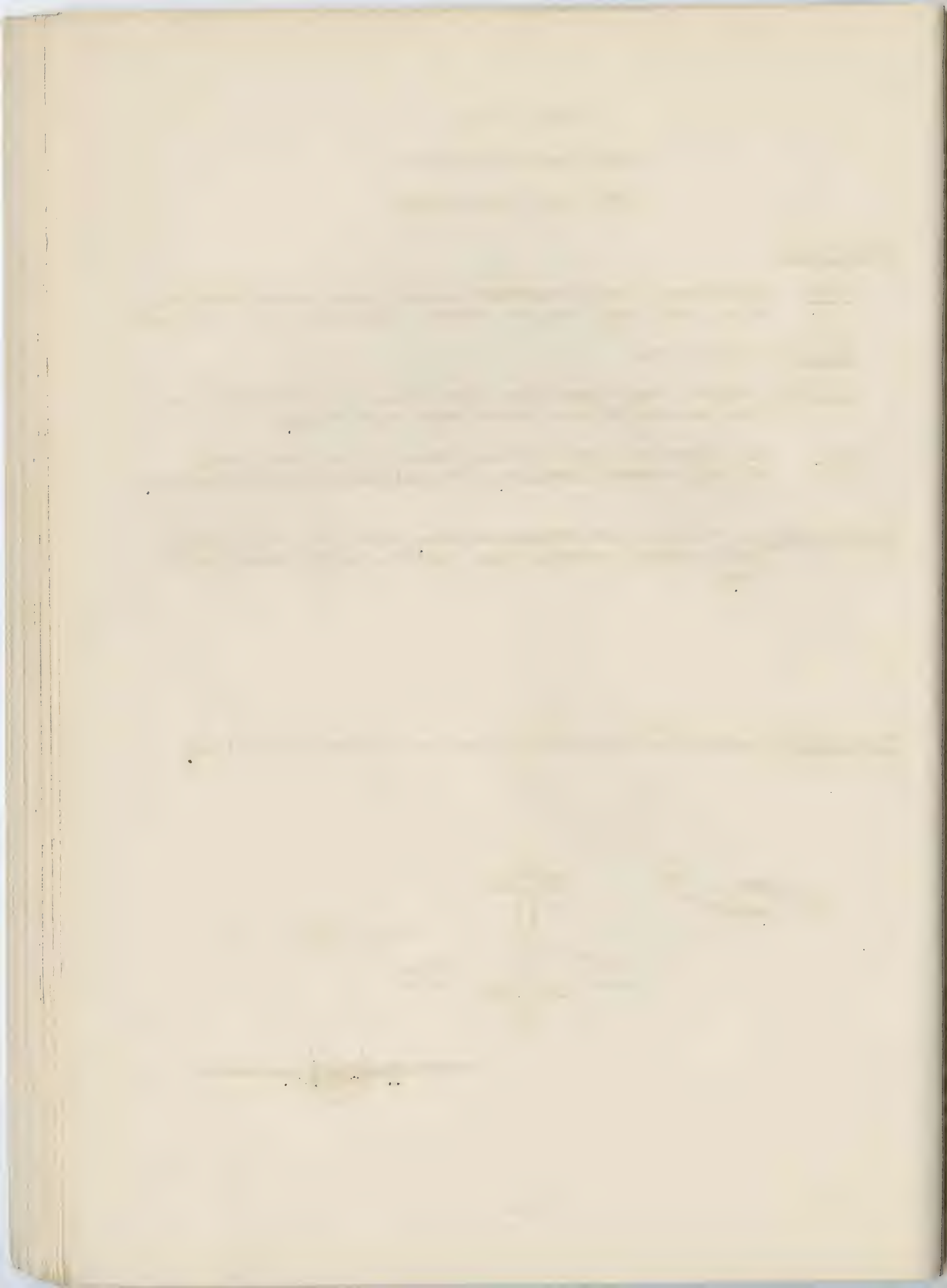
FUSELAGE: Long but very chunky with shark nose. Rear third of fuselage has very definite upward swing above water.

TAIL: Tail plane has large dihedral; straight edge stabilizer, slightly tapered elevators. Twin elliptical fins and rudders.

SPECIFICATIONS: Two 1,350 H.P. Cyclone engines. Span 118 feet, length 77 feet 2 inches, height 17 feet 6 inches, weight loaded 40,000 lbs.

PERFORMANCE: Armament gun turret in nose, and one on each side of hull.





## SCOUT OBSERVATION

SO3C (Curtiss) "Seagull". Multiplace.

LAND PLANE or FLOAT SEAPLANE

### DESCRIPTION:

WINGS: Midwing monoplane; straight leading edge; tapered trailing edge; rounded tips, rather short and chunky, small dihedral.

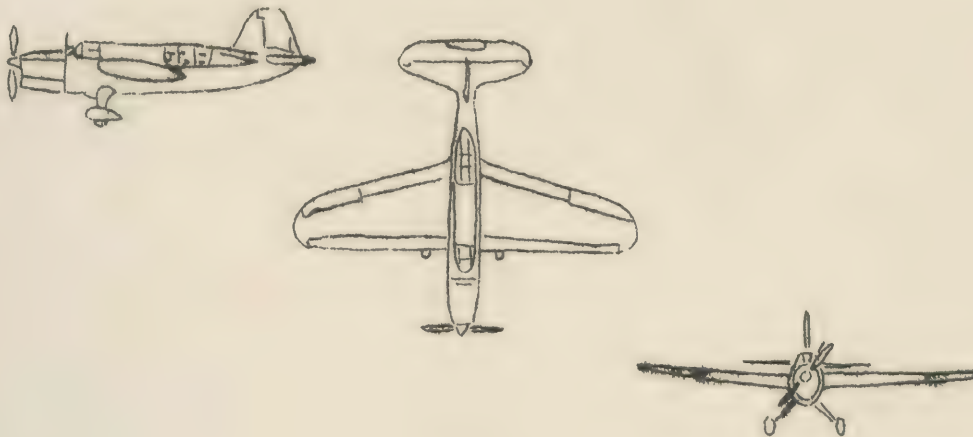
ENGINE: Single in-line.

FUSELAGE: Elongated and streamlined; fairly long, tapered nose with propeller shaft near top. Long enclosed cabin extending several feet in front and rear of wings. Fixed landing gear with spats; may be replaced by float.

TAIL: Sharply sweptback stabilizer, rounded elevator and tips; high rounded fin and rudder.

SPECIFICATIONS: 520 H. P. Range V-air-cooled engine. Span 38 feet, length 34.2 feet, height 11.4 feet, weight, empty 4,113 lbs., loaded 5,588 lbs. Fuel 199 gals., oil 12 gals.

### PERFORMANCE:





THE  
HISTORY OF THE  
CITY OF  
NEW YORK  
FROM  
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FIRST  
SETTLEMENT  
TO  
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PRESENT  
TIME  
BY  
JOHN  
ROBERTSON  
1850



## SCOUT OBSERVATION

SOC (Curtiss) and SCN (Navy). Multiplace.

LAND PLANE OR FLOAT SEAPLANE

### DESCRIPTION:

WINGS: Biplane, slightly sweptback leading edge; trailing edges parallel to leading edges; rounded tips; small dihedral. Rear center section top wing cut out in oval. Positive stagger.

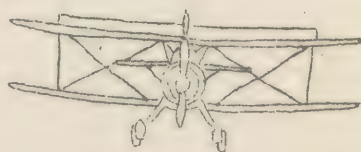
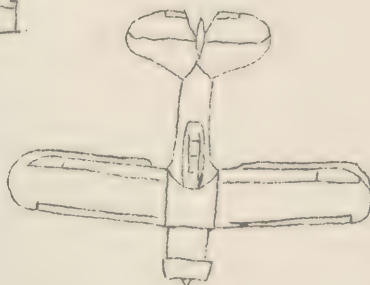
ENGINE: Single radial.

FUSELAGE: Short and chunky with blunt and stubby nose; enclosed cockpit extending several feet in rear of trailing edge of lower wing. Fixed landing gear, interchangeable with floats.

TAIL: Sharply sweptback stabilizer, rounded elevator with large V slot cut out in rear center. Rounded tips; high rounded fin and rudder.

SPECIFICATIONS: 550 H.P. Pratt and Whitney Wasp engine. Span 36 feet, length 26-1/2 feet. Weights empty land plane 3,543, loaded land plane 5,192. Weight empty, sea plane 3,788, loaded sea plane 5,437. Gas 144 gals., oil 10 gal.

PERFORMANCE: Maximum speed land plane 168 M.P.H. Seaplane 165 M.P.H. Cruising speed land plane 137 M.P.H. Seaplane 133 M.P.H. Landing speed land plane 56 M.P.H. Seaplane 57 M.P.H. Service ceiling land plane 16,070 feet. Seaplane 14,900 feet. Range land plane 697 miles. Seaplane 675 miles. Armament 1 M. G. firing thru propeller. 1 M. G. in observers cockpit. Camera gun. Racks for 2 100 lb. bombs under lower wing.







## OBSERVATION SCOUT

OS2U-1 (Vought-Sikorsky) "Kingfisher". Multi-place.

BOTH LAND AND SEA-PLANE

### DESCRIPTION:

WINGS: Midwing monoplane, straight leading edge, slightly tapered trailing edge, rounded tips, rather short and wide.

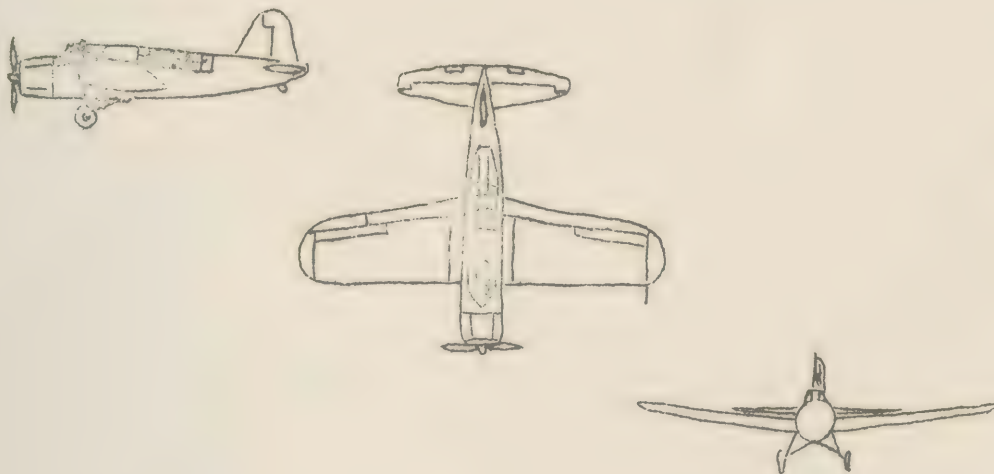
ENGINE: Single radial.

FUSELAGE: Fairly elongated and rather streamlined with blunt but fairly long nose. Enclosed cockpit extending from one foot in front of leading edge to several feet in rear of trailing edge. Seaplane has single main float, with wing tip floats. Land plane has retractable landing gear.

TAIL: Sweptback stabilizer, tapered elevator, wide span, tapered tips; high fin and rudder.

SPECIFICATIONS: 450 H.P. Pratt and Whitney Wasp Jr. engine. Span 38 feet, length (land plane) 34 feet, sea-plane 36 feet.

### PERFORMANCE:





FIGHTER  
F2A-1 and F2A-2 (Brewster) "BUFFALO".

DESCRIPTION:

WINGS: Midwing monoplane, straight leading edge, tapered trailing edge, round tips, short and fairly stubby; slightly dihedral.

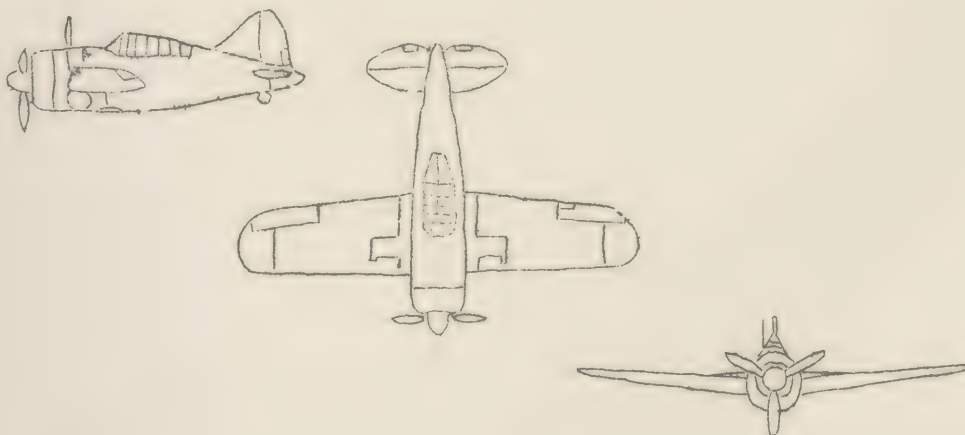
ENGINE: Single radial.

FUSELAGE: Short and chunky with blunt and stubby nose, large rounded cuff on propeller shaft, enclosed cockpit over trailing edge of wing, retractable landing gear and tail wheel.

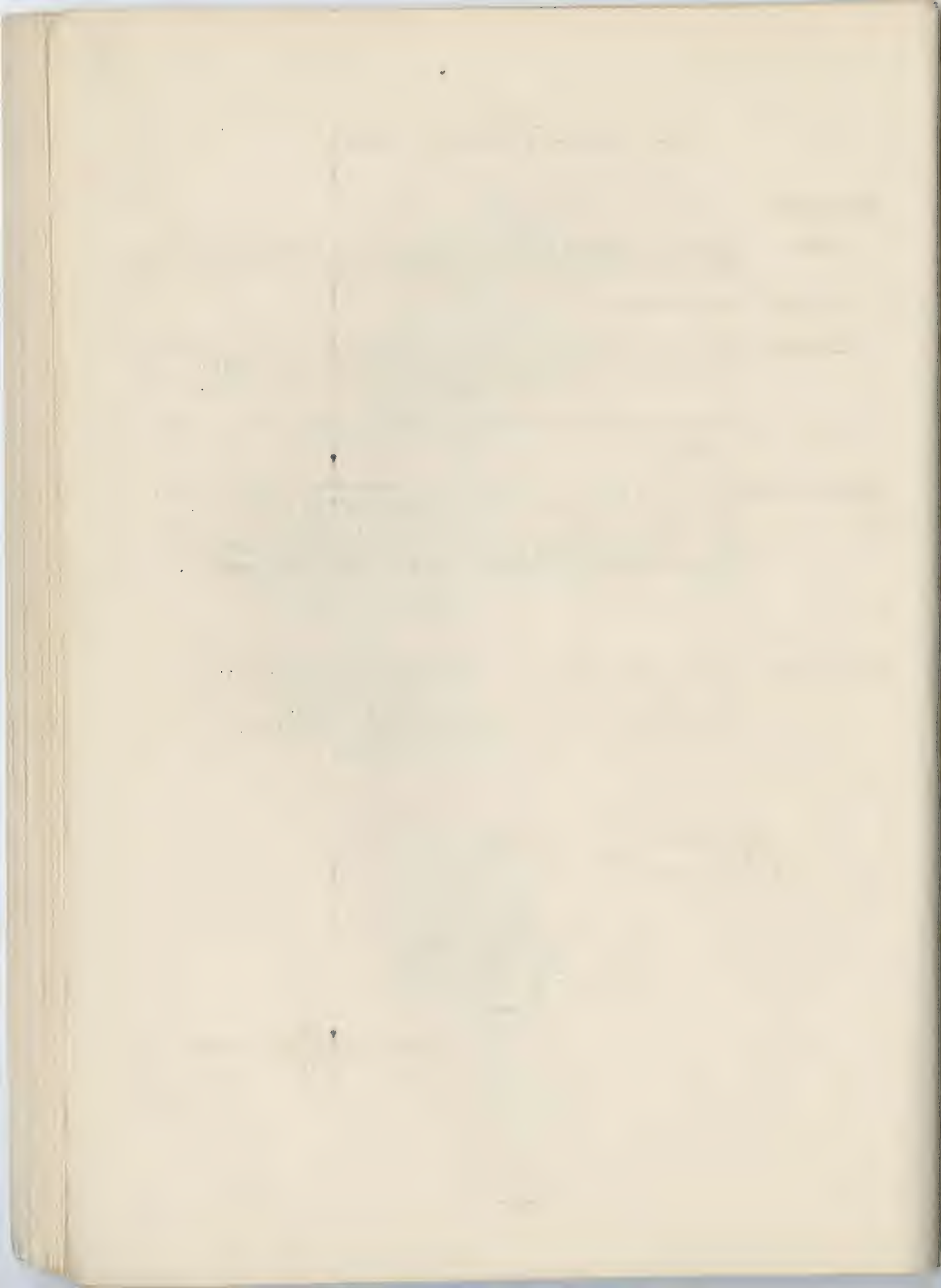
TAIL: Sweptback stabilizer, tapered elevator, high, wide fin and rudder.

SPECIFICATIONS: 1200 H.P. Wright-Cyclone engine supercharged Span 35 ft., length 26 feet, height 12 feet, empty weight 4,495 lbs. Gross weight 6,520 lbs. Fuel 200 gals. Bullet proof gas tanks and windshield, armor plating on cockpit. Downward vision enhanced by plexiglas window in floor of cockpit.  
auxiliary fuel tank under wing

PERFORMANCE: Maximum speed 345 M.P.H., cruising speed 332 M.P.H., landing speed 73 M.P.H., service ceiling 30,650 feet, climb 4,000 feet per min. Range 1,432 miles. 800 miles. Armament 4-50 Cal. MG, 2 firing through propeller, 1 on each wing. Carries 2-100 lb. bombs.







## FIGHTER

F3F (Grumman)

### DESCRIPTION:

WINGS: Biplane; straight leading and trailing edges; rounded tips; short and stubby; positive stagger; heavy strutt-braced.

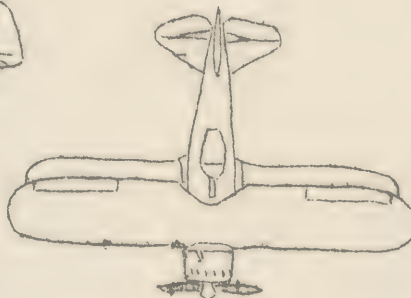
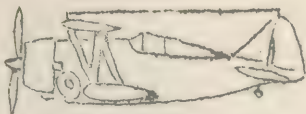
ENGINE: Single radial.

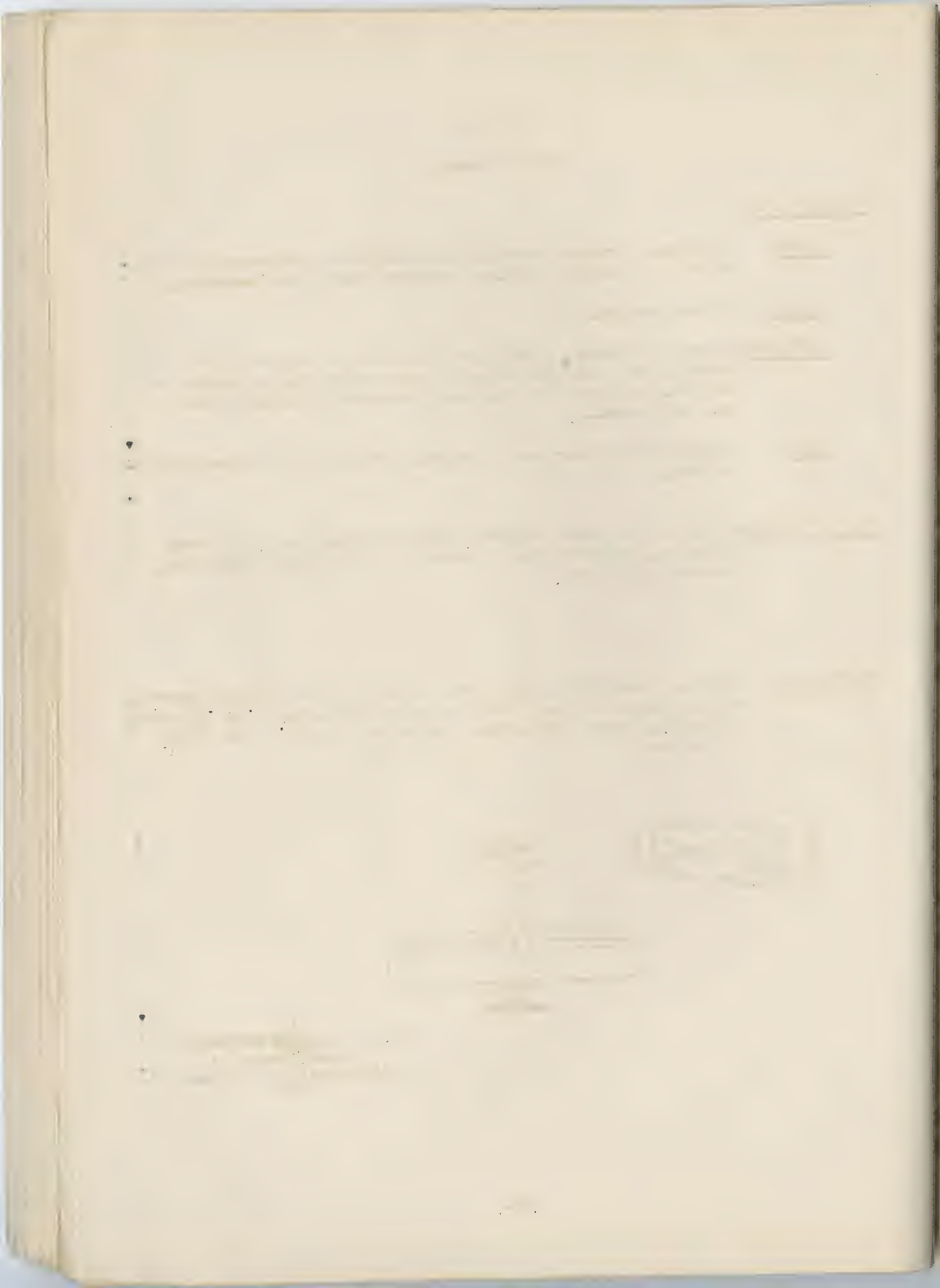
FUSELAGE: Short and chunky, with blunt and stubby nose; enclosed cockpit over trailing edge of lower wing; slight radiator bulge under front of fuselage; retractable landing gear and tail wheel.

TAIL: Rounded stabilizer and elevator. Rather high rounded fin and rudder.

SPECIFICATIONS: 745 H.P. Cyclone engine. Span 32 feet, length 23 feet 3 inches, height 8 feet 9 inches. Weight empty 3,215 lbs, loaded 4,553 lbs.

PERFORMANCE: Maximum speed 270 M.P.H. Rate of climb 3,000 F.P.M. Service ceiling 32,000 feet. Cruising speed 224 M.P.H, landing speed 67 M.P.H. Range 720 miles. Armament 2 machine guns thru propeller.







## FIGHTER

### F4F-3 (Grumman) "Wildcat"

#### DESCRIPTION:

WINGS: Midwing monoplane, *slightly swept back* ~~straight~~ leading edge, slightly tapered trailing edge, square tips.

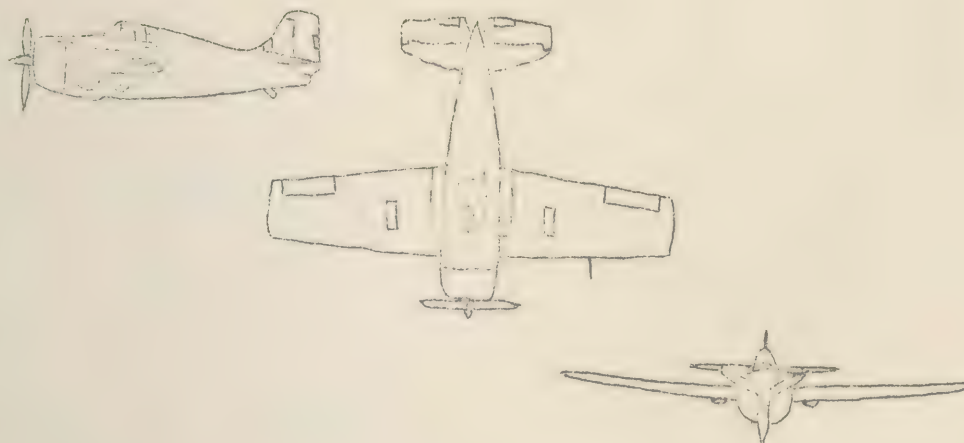
ENGINE: Single radial.

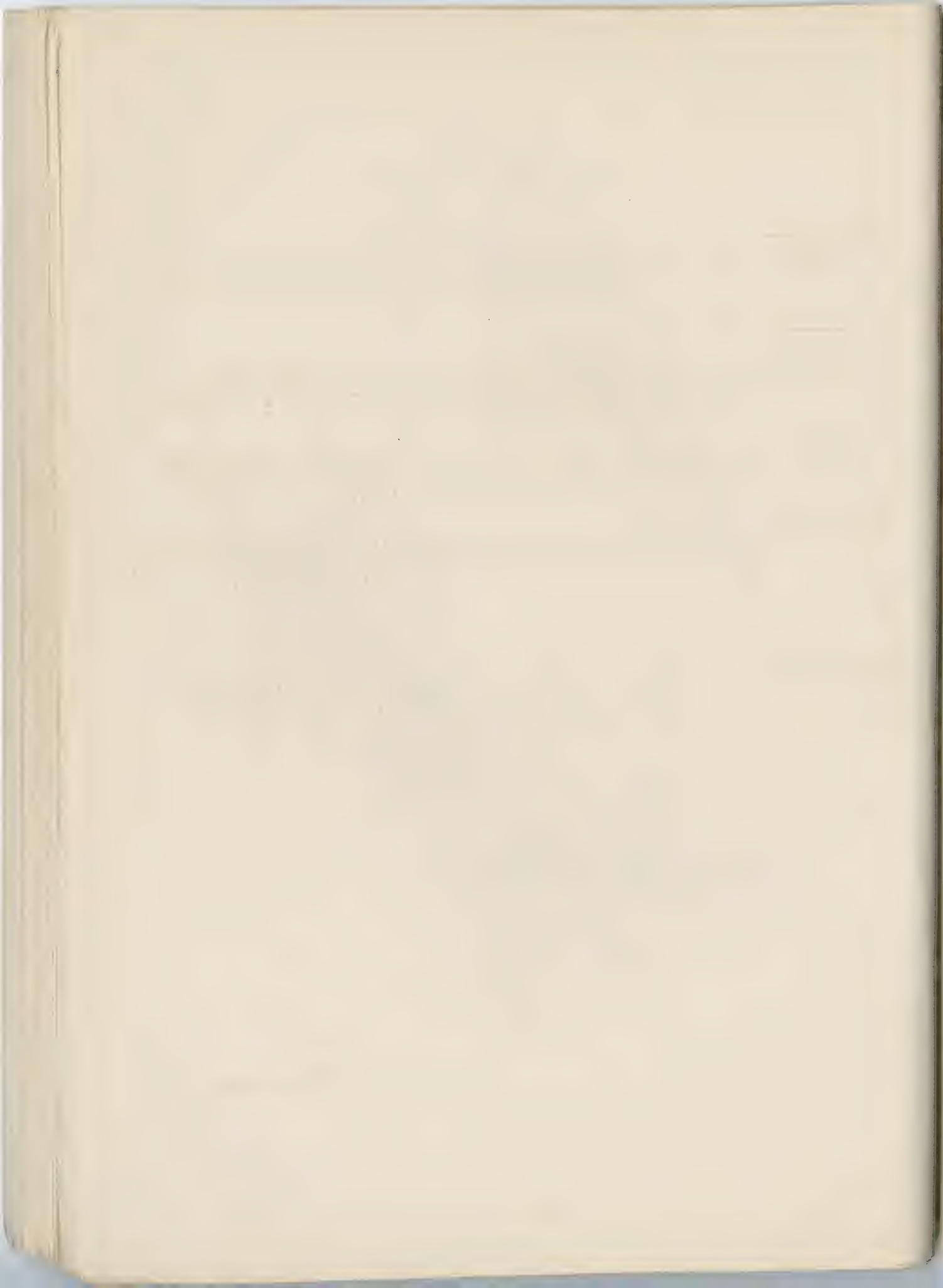
FUSELAGE: Short and chunky with blunt and stubby nose but rather streamlined. Enclosed cockpit over rear of wing. Retractable landing gear, fixed tail wheel.

TAIL: Sweptback stabilizer and straight elevator with square tips and rather wide span. Rather high fin and rudder, rounded where bottom front of fin joins fuselage.

SPECIFICATIONS: 1,200 H.P. Pratt and Whitney engine. Armor and leak proof tanks. Weight 6,100 lbs. Span 38 feet, length 28 feet 10 in., height 9 feet 3 inches. Fuel 160 gals., oil 11 gals.

PERFORMANCE: Maximum speed 350 M.P.H. Cruising speed 297 M.P.H. Landing speed 38 M.P.H. Rate of climb 3,300 F.P.M. Service ceiling 28,500 feet, range 1,150 miles.





## FIGHTER

F4U (Vought-Sikorsky) "Corsair"

### DESCRIPTION:

WINGS: Low-wing monoplane, straight leading edge, sweptback trailing edge, short and wide, with rounded tips; negative dihedral.

ENGINE: Single radial.

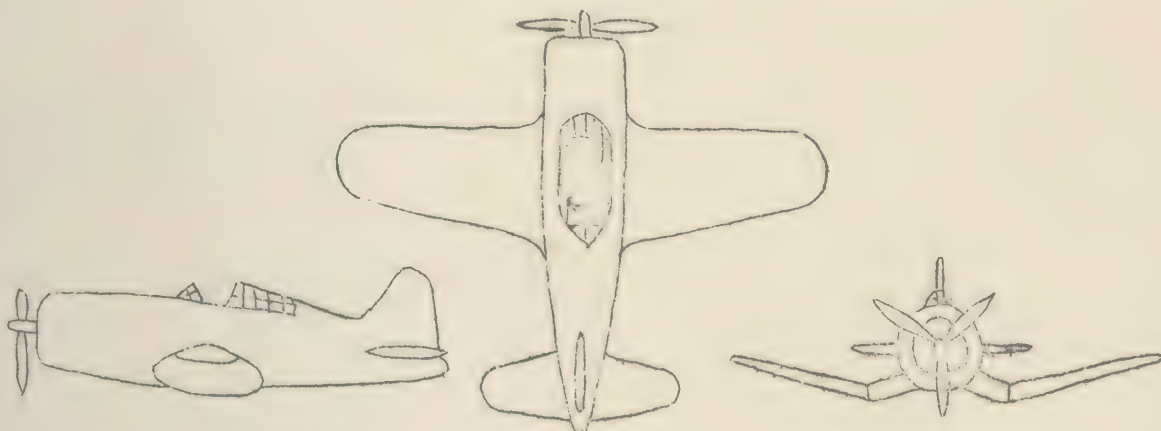
FUSELAGE: Elongated and streamlined, bullet shaped; blunt nose with long heavy cuff on propeller shaft. Enclosed cockpit; retractable landing gear and tail wheel.

TAIL: Rounded stabilizer and elevator, wide span, very high, wide, rounded fin and rudder.

SPECIFICATIONS: 1850 H.P. Pratt and Whitney engine; length <sup>30</sup>~~40~~ feet; span ~~30~~ <sup>40</sup> feet.

More than 400 M.P.H.

PERFORMANCE: Newest fighter under construction. Fast, powerful and heavily armed.



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1891

1892

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1900

1901

1902

1903

1904

1905



## SCOUT-TRAINER

SNC-1 (Curtiss) 2 Place

### DESCRIPTION:

WINGS: Low-wing monoplane, sharply sweptback leading edge, straight trailing edge, tapered tips, rather narrow. Small dihedral. Retracted landing gear, shows bulge underneath.

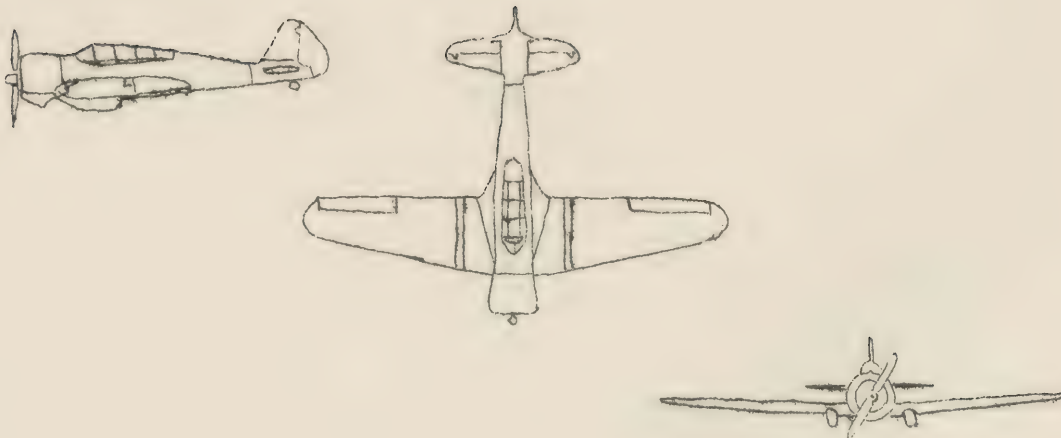
ENGINE: Single radial.

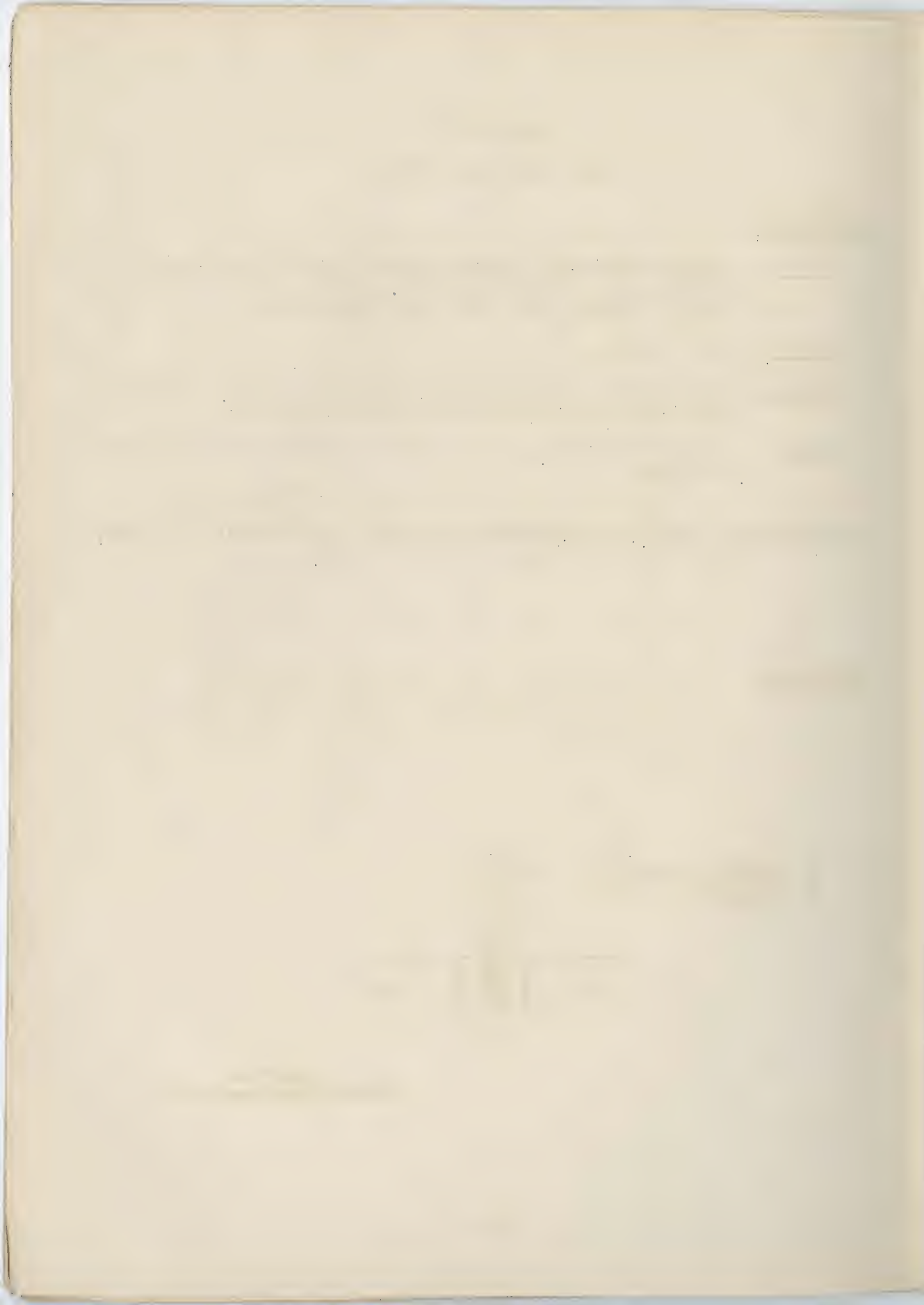
FUSELAGE: Elongated and streamlined, blunt but rounded nose. Enclosed cabin, retractable landing gear, fixed tail wheel.

TAIL: Sweptback stabilizer, narrow tapered elevator and tips, rather long span.

SPECIFICATIONS: 450 H.P. Wright Whirlwind engine. Wing span 35 feet 2 in., length 27 feet 1 in., height 10 feet 8 in.

### PERFORMANCE:





## SCOUT TRAINER

SNJ (North American) (AT-6 in Army) 2 Place.

### DESCRIPTION:

WINGS: Low-wing monoplane, sweptback leading edge, straight trailing edge, nearly square tips, slightly dihedral.

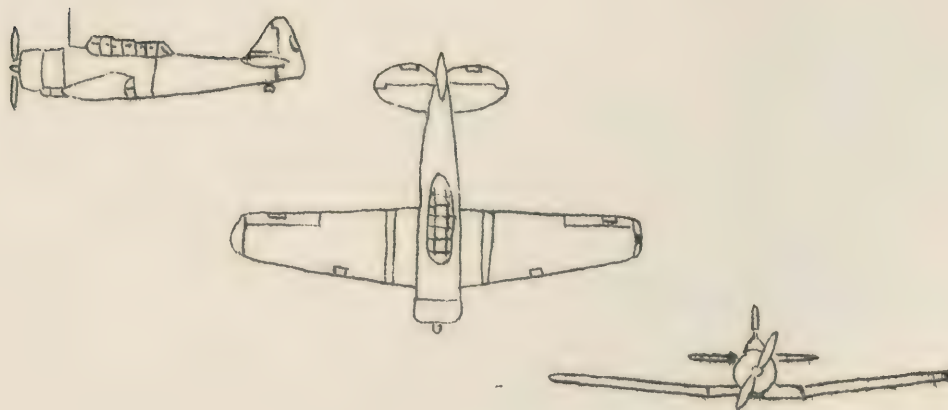
FUSELAGE: Short and chunky, blunt and stubby nose, enclosed cockpits, retractable landing gear.

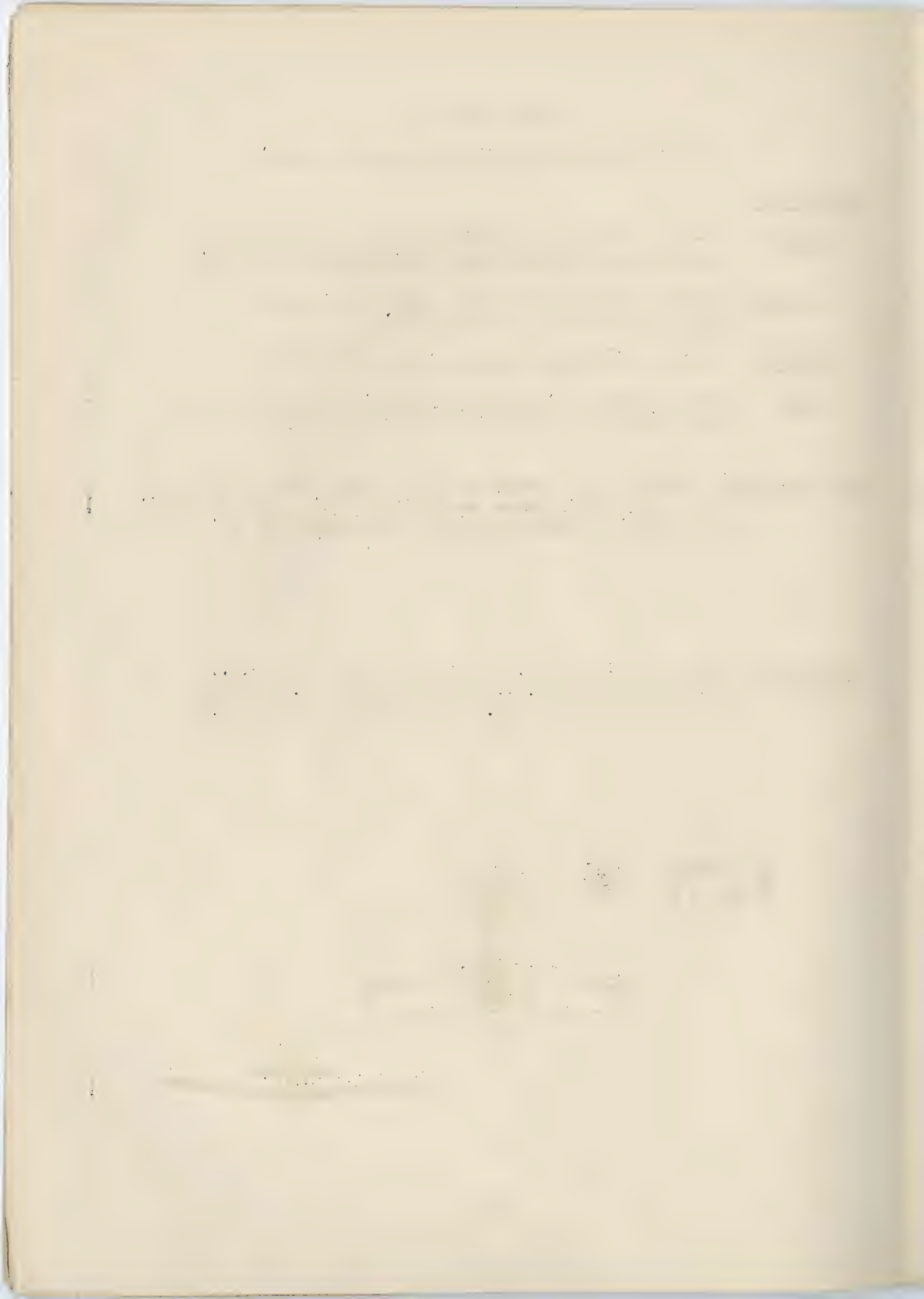
ENGINE: Single, air-cooled, radial, 2 bladed propeller.

TAIL: Rounded stabilizer, rounded elevator, rudder extends out beyond elevator, medium high fin and rudder.

SPECIFICATIONS: Span 42 feet, length 29 feet, height 8-3/4 feet, empty weight 3,958 lbs. Gross weight 5,260 lbs. Fuel 111 gals., oil 10 gals. Engine Pratt and Whitney Wasp 550 H.P.

PERFORMANCE: Maximum speed 206 M.P.H., cruising speed 180 M.P.H., landing speed 66 M.P.H., service ceiling 23,000 feet, climb 1,350 feet per min. Cruising range 730 miles.







## BASIC TRAINER

NJ-1 (North American) (Army BT 14) 2 Place.

### DESCRIPTION:

WINGS: Low wing monoplane, sweptback leading edge, tapered trailing edge, rounded tips, slightly dihedral.

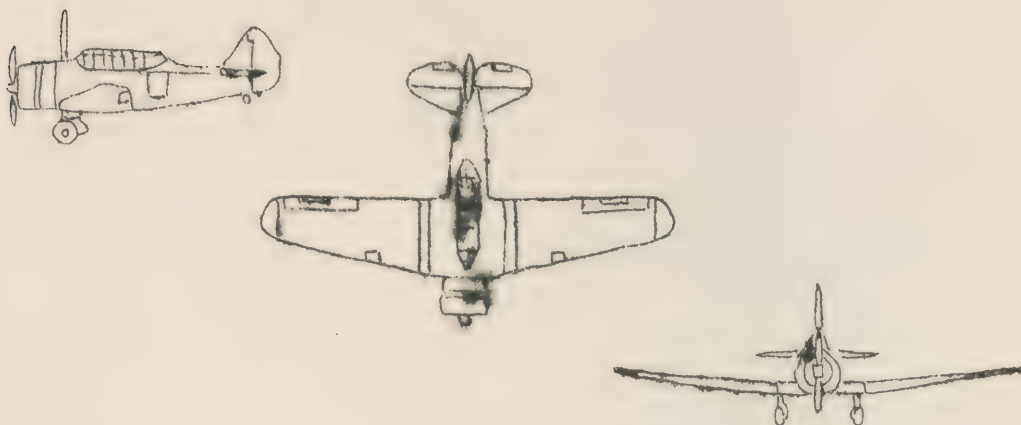
ENGINE: Single, air-cooled radial, 2 blade propellers.

FUSELAGE: Short and chunky with blunt and stubby nose, enclosed cockpits, fixed landing gear.

TAIL: Sweptback stabilizer, tapered elevator. Medium high fin and rudder.

SPECIFICATIONS: Span 42 feet, length 28-1/2 feet, height 9 feet, empty weight 2,976 lbs., gross weight 2,991 lbs., fuel 92 gals., oil 8-1/2 gals., single 450 h.p. engine.

PERFORMANCE: Maximum speed 182 M.P.H. Cruising speed 170 M.P.H. at 5,000 feet. Landing speed 53 M.P.H. Service ceiling 21,000 feet. Time to climb 3,280 feet, 2 - 1 mins. Cruising range 730 miles.





PRIMARY TRAINER

N3N3 (Navy) 2 Place.

Land Plane and Float Sea-Plane

DESCRIPTION:

WINGS: Biplane, straight leading and trailing edges, with rounded tips; oval cut out of center of top wing. Positive stagger.

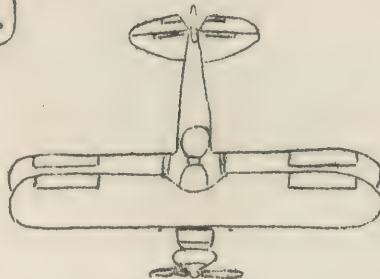
ENGINE: Single radial.

FUSELAGE: Short and chunky with blunt and stubby nose; open cockpits; fixed landing gear; single float with wing tip pontoons on sea-plane.

TAIL: Rounded stabilizer and elevator with V cut out of center of elevator. High rounded fin and rudder.

SPECIFICATIONS: 235 H.P. radial engine, span 34 feet; length 25 feet 7 inches, height 9 feet 3 inches. Gross weight 2,900 lbs.

PERFORMANCE: Maximum speed 120 M.P.H. Range 450 miles.



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## PRIMARY TRAINER

NR (Ryan) (Army PT 16 - PT 21) 2 Place.

### DESCRIPTION:

WINGS: Low wing monoplane, slightly sweptback leading edge, trailing edge parallel to leading edge, with slightly rounded tips, small dihedral.

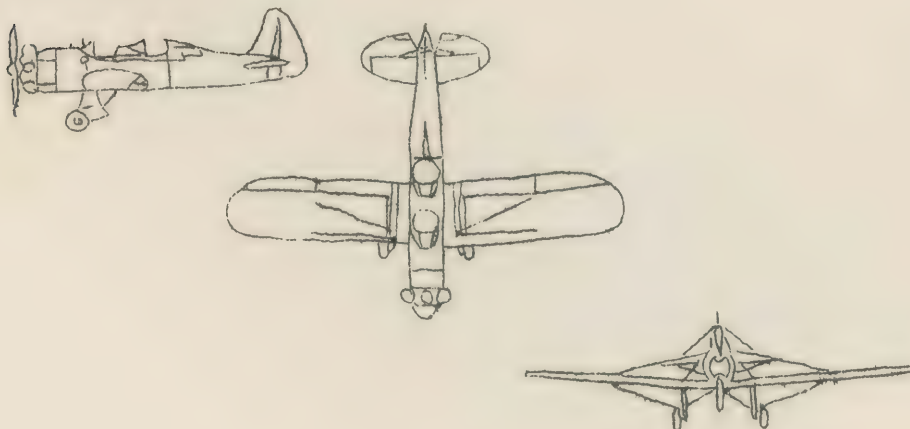
ENGINE: Single, radial, air cooled with cylinder heads protruding around nose.

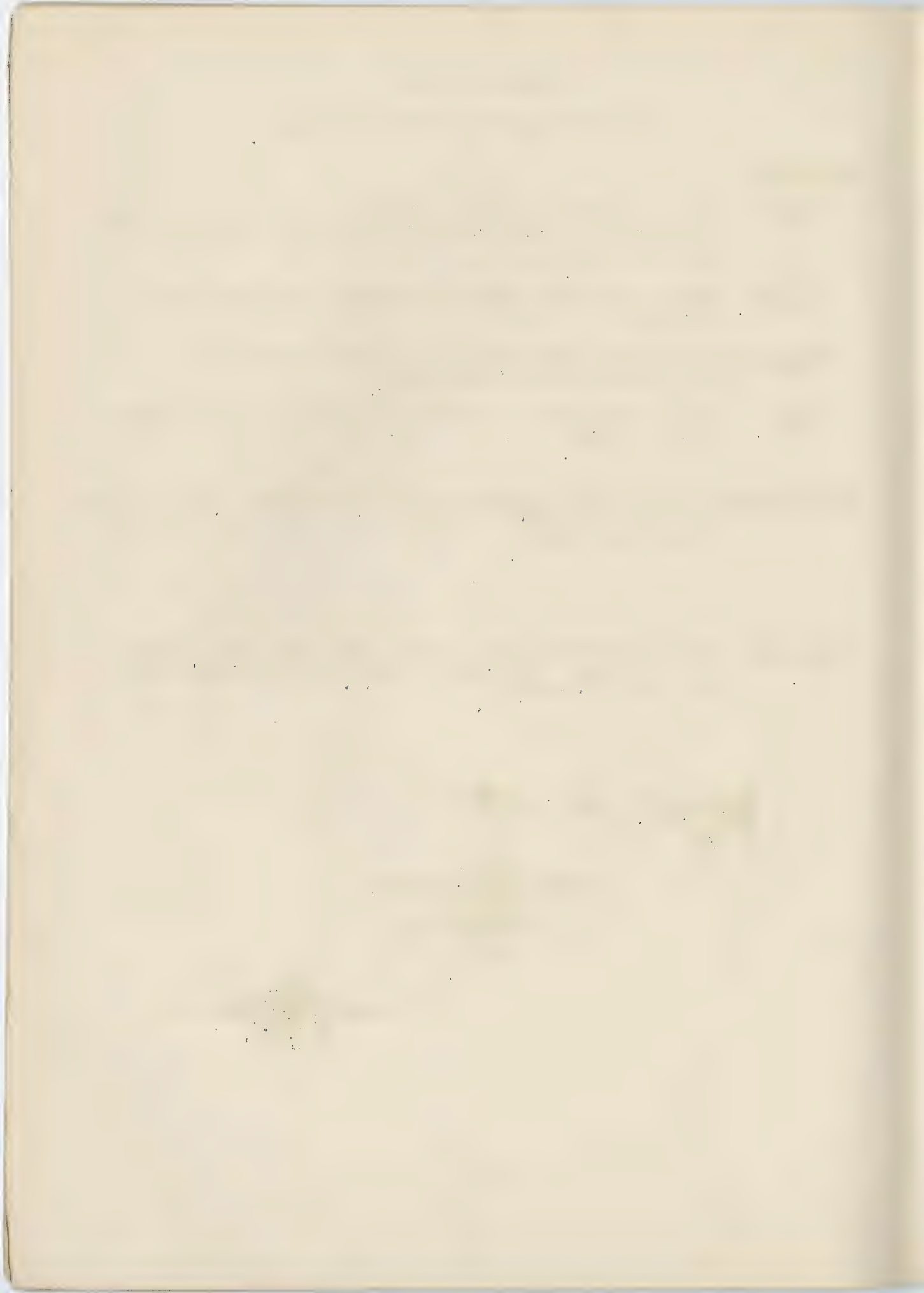
FUSELAGE: Long, rounded and tapering with rounded pointed nose, open cockpits, fixed landing gear.

TAIL: Rounded stabilizer and elevator, high fin, and rudder elliptical tip at top.

SPECIFICATIONS: 125 or 150 H.P. ~~Menasco~~ engine. Gas 24 gals. Span 30 feet, length 20 feet 4 inches, height 6 feet 3 inches. Weight empty 1,027, loaded 1,600.

PERFORMANCE: Maximum speed 150 M.P.H. Cruising speed 127 M.P.H. Landing speed 42 M.P.H. Climb 1,200 F.P.M. Service ceiling 17,500 feet. Range 350 miles.





## PRIMARY TRAINER

NS and N2S (Stearman) (Army PT 13 and PT 17) 2 Place.

### DESCRIPTION:

WINGS: Biplane, straight leading and trailing edge, short and stubby

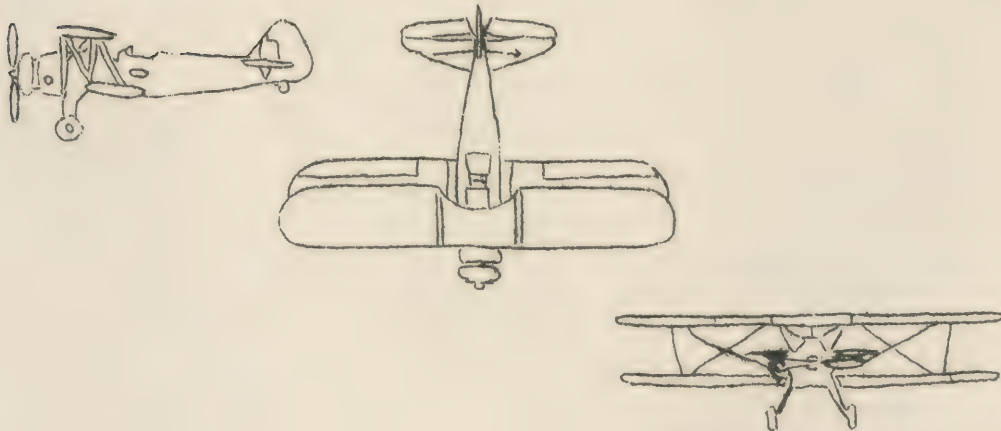
ENGINE: Single, air-cooled radial.

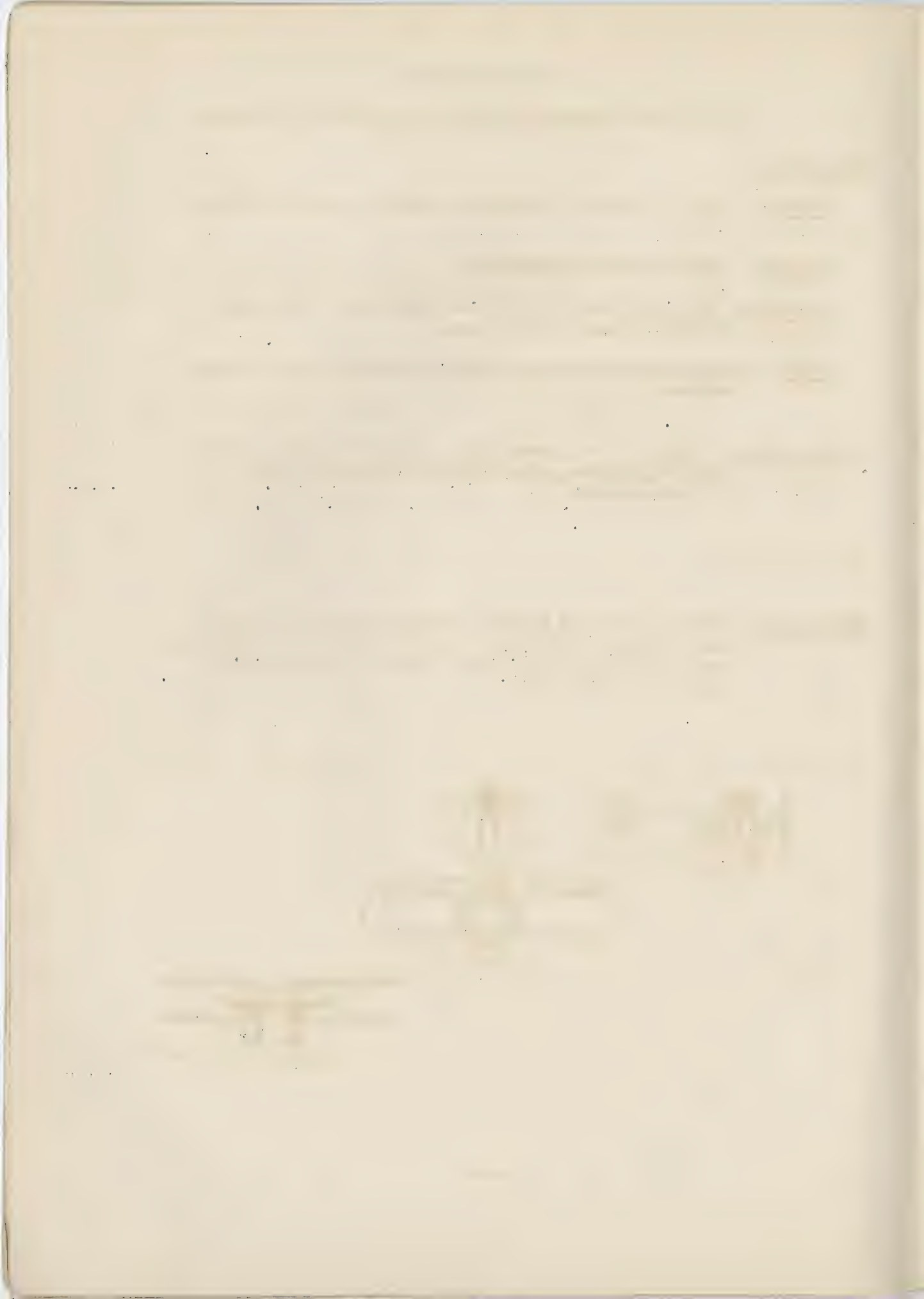
FUSELAGE: Short and chunky with blunt and stubby nose, open cockpits, fixed landing gear.

TAIL: Sweptback stabilizer, tapered elevator, high fin and rudder.

SPECIFICATIONS: Span 32' 2", length 25', height 9' 4-1/2", gross weight 2,635 lbs., fuel 46 gals., oil 4.4 gals., 220 H.P. engine.

PERFORMANCE: Maximum speed 123 M.P.H. Cruising speed 96 M.P.H. Landing speed 60 M.P.H. Rate of climb 960 feet per min. Service ceiling 13,000 feet absolute ceiling 14,700 feet. Range 390 miles







## MULTI-ENGINE TRANSPORT

R20 (Lockheed)

### DESCRIPTION:

WINGS: Low-wing monoplane; sweptback leading edge, tapered trailing edge; rounded tips. Long and wide at root. Medium dihedral.

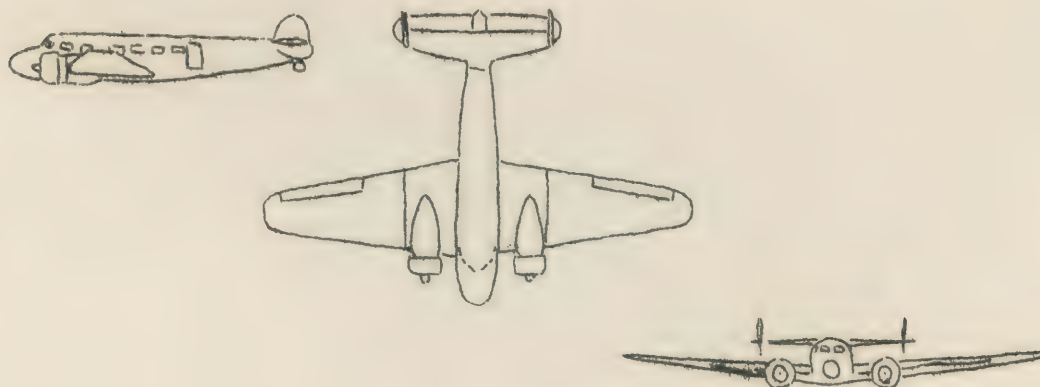
ENGINE: Twin-radial.

FUSELAGE: Elongated but rather thick from nose to tail. Rounded nose extending several feet in front of propellers. Enclosed cabin extending  $2/3$  length of fuselage; retractable landing gear, fixed tail wheel.

TAIL: Sweptback stabilizer, straight elevator - wide span. Twin, low, rounded fin and rudders, extending below stabilizer.

### SPECIFICATIONS:

PERFORMANCE: Used by Marines for parachute troops and other transport purposes.





## MULTI-ENGINE TRANSPORT

R4D (Douglas)

### DESCRIPTION:

WINGS: Low-wing monoplane, sharply sweptback leading edge, straight trailing edge, tapered tips; long and narrow. Medium dihedral.

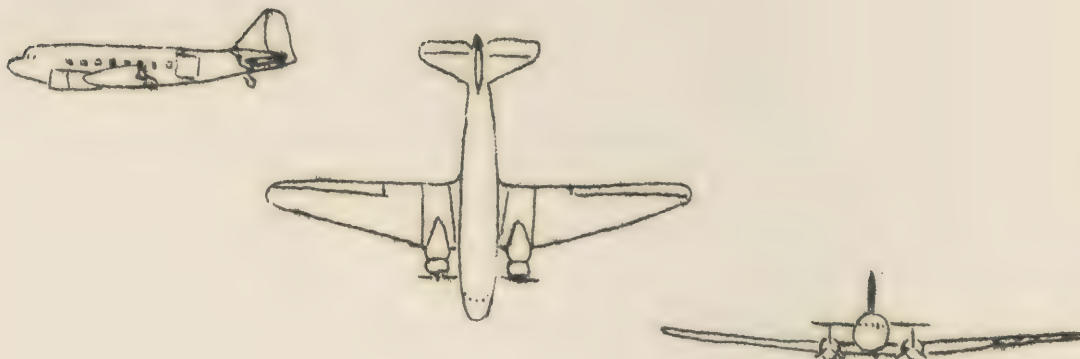
ENGINE: Twin-radial.

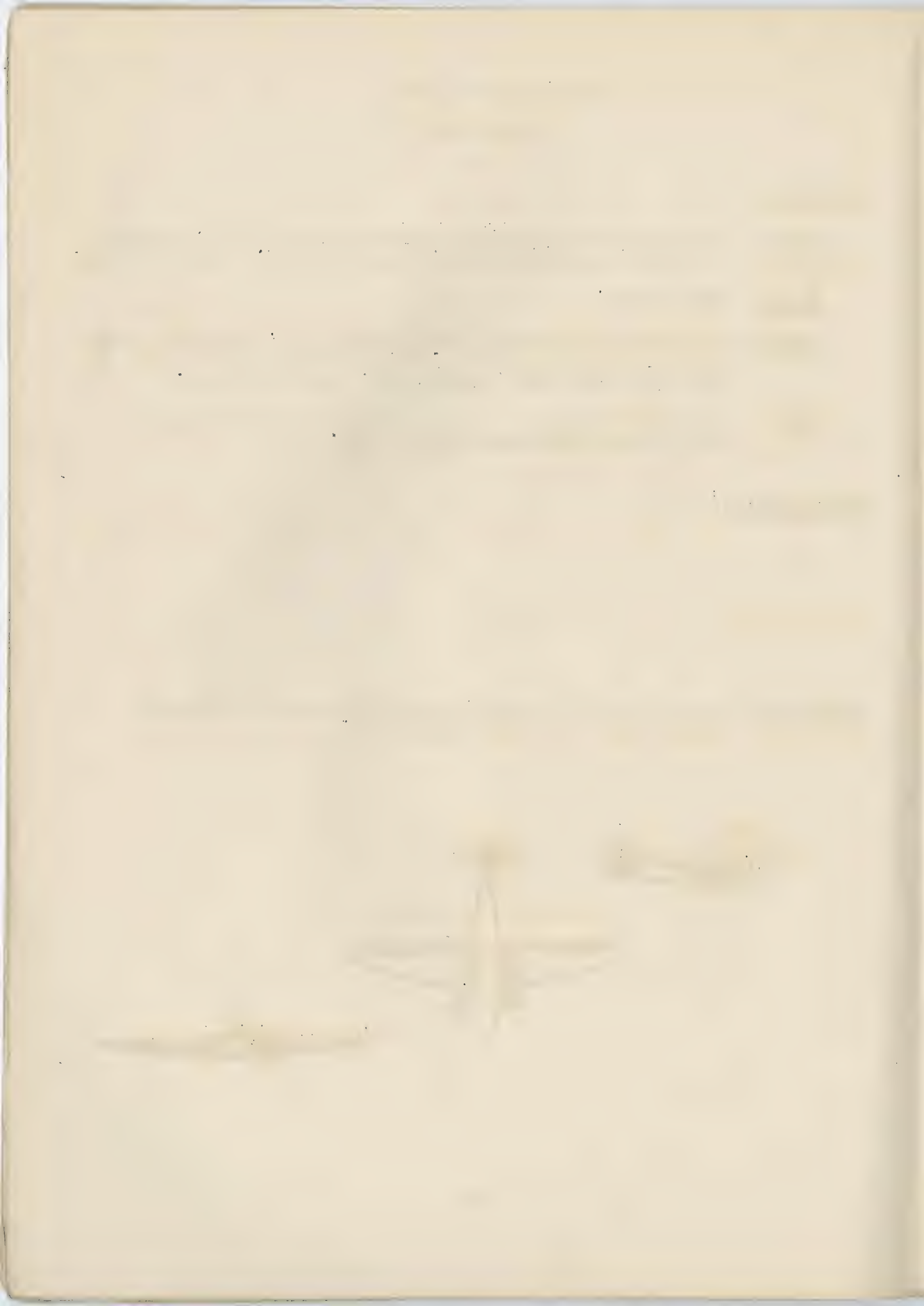
FUSELAGE: Elongated and streamlined with rounded nose, extending several feet in front of propellers. Enclosed cabin entire length of fuselage, retractable landing gear, fixed tail wheel.

TAIL: Sweptback stabilizer; straight elevator; rounded tips; very high fin and rudder with rounded tips.

### SPECIFICATIONS:

PERFORMANCE: Latest type land transport; used by Marines for parachute troops also other transport purposes.







## UTILITY-TRANSPORT

JRS (Sikorsky)

AMPHIBIAN

### DESCRIPTION:

WINGS: Parasol wing connected to top of hull with solid vertical sections; sweptback leading edge; tapered trailing edge; elliptical tips; long narrow span; fixed wing floats midway from hull to tips.

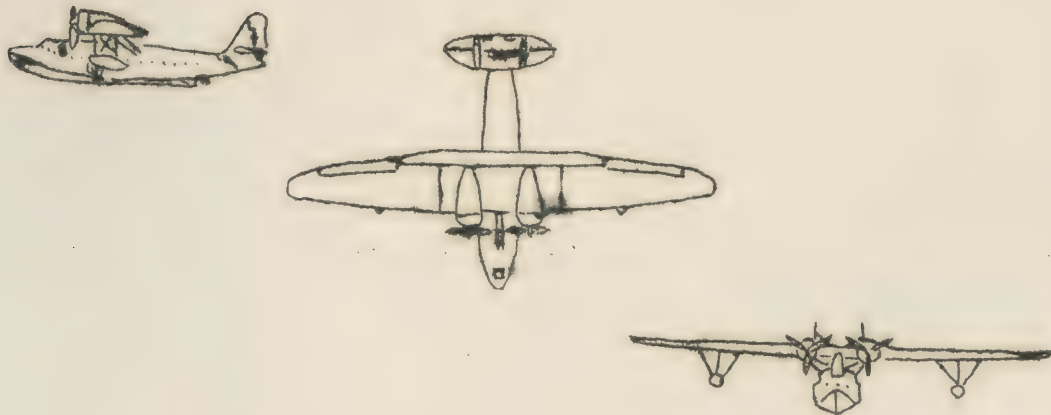
ENGINE: Twin radial.

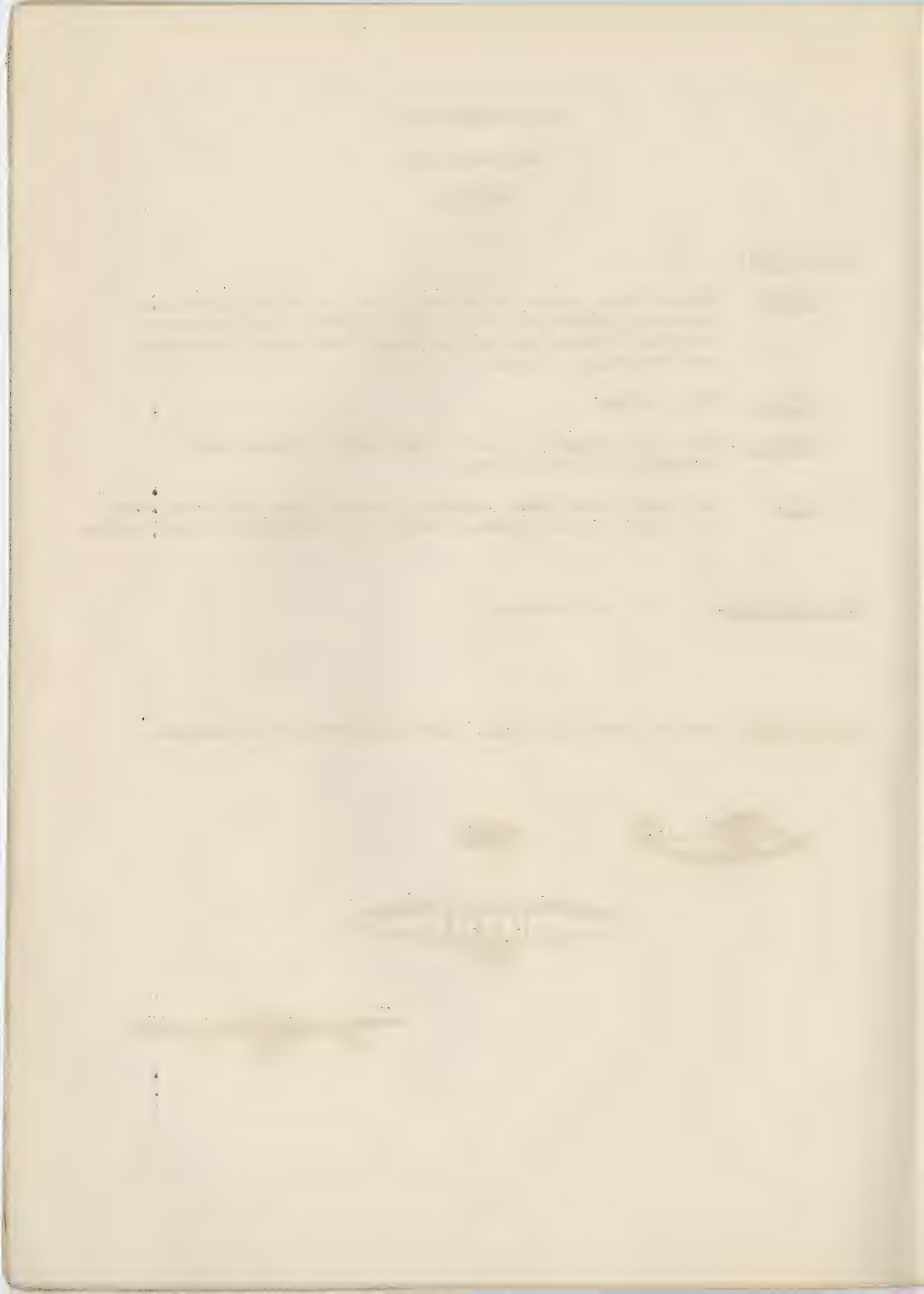
FUSELAGE: Long but chunky with shark nose; large enclosed cabin; retractable landing gear.

TAIL: Sweptback stabilizer; rounded elevator; both have wide span. Very high fin and rudder. Twin fin and rudder on later models.

SPECIFICATIONS: 2- 750 H.P. motors.

PERFORMANCE: Maximum speed 190 M.P.H. Carries 15 or more passengers.





## SINGLE-ENGINE TRANSPORT .

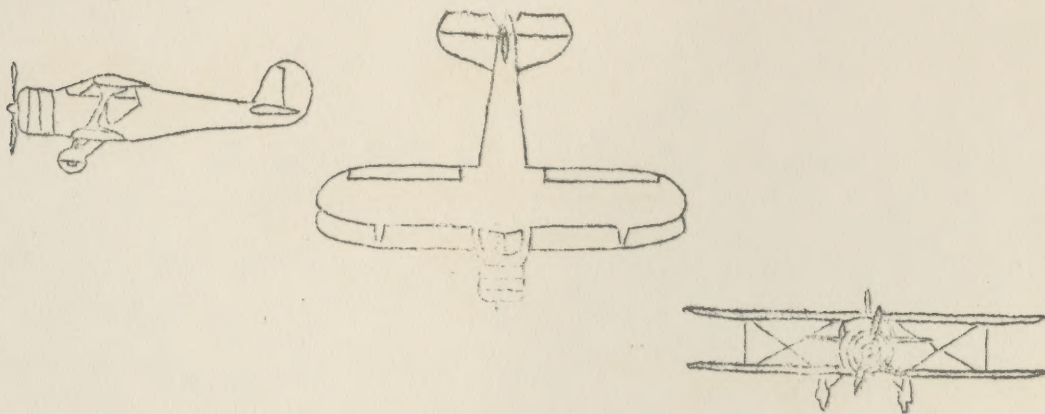
GB-1 (Beechcraft) - 4 or 5 Place

### DESCRIPTION:

- WINGS: Biplane; straight leading and trailing edges; tips negative stagger. Top wing joins rounded top of cabin on each side.
- ENGINE: Single radial.
- FUSELAGE: Fairly long but chunky with long but blunt nose; enclosed cabin; retractable landing gear and fixed tail wheel.
- TAIL: Rounded stabilizer; straight elevator with V cut out center. High, wide, rounded fin and rudder.

- SPECIFICATIONS: Several type radial engines used with from 285 to 450 H.P. Span 32 feet, length 26 feet, height 8-1/2 feet. Empty weight 2,080 to 2,465 lbs.; loaded weight 3,350 to 4,200 lbs. depending upon power plant.

- PERFORMANCE: Used for administrative, utility and light transport purposes. Cruising range 700 miles.









UTILITY  
J2F-2 (Grumman) - Multiplace  
AMPHIBIAN

DESCRIPTION:

WINGS: Biplane; straight leading and trailing edges; rounded tips; positive stagger; oval cut out center of top wing; floats near ends of lower wings.

ENGINE: Single radial.

FUSELAGE: Short and chunky with blunt and stubby nose; enclosed cabin center of fuselage; float extends several feet in front of propeller. Retractable landing gear and tail wheel.

TAIL: Sweptback stabilizer; rounded elevator with V cut out center; rounded tips; high rounded fin and rudder.

SPECIFICATIONS: 775 H.P. cyclone radial engine. Span 39 feet, length 34 feet, height 12 feet 3-1/2 inches; weight empty 4,300 lbs., loaded 6,170 lbs. Fuel capacity 150 gals.

PERFORMANCE: Used for photo, target towing, scouting and rescue work. Maximum speed 180 M.P.H. Landing speed 64 M.P.H. Climb 1,500 F.P.M. Service ceiling 21,000 feet, Range 780 miles.

